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ON A THIN 45° SWEPTBACK HIGHLY TAPERED WING
WITH SYSTEMATIC SPANWISE TWIST VARIATIONS

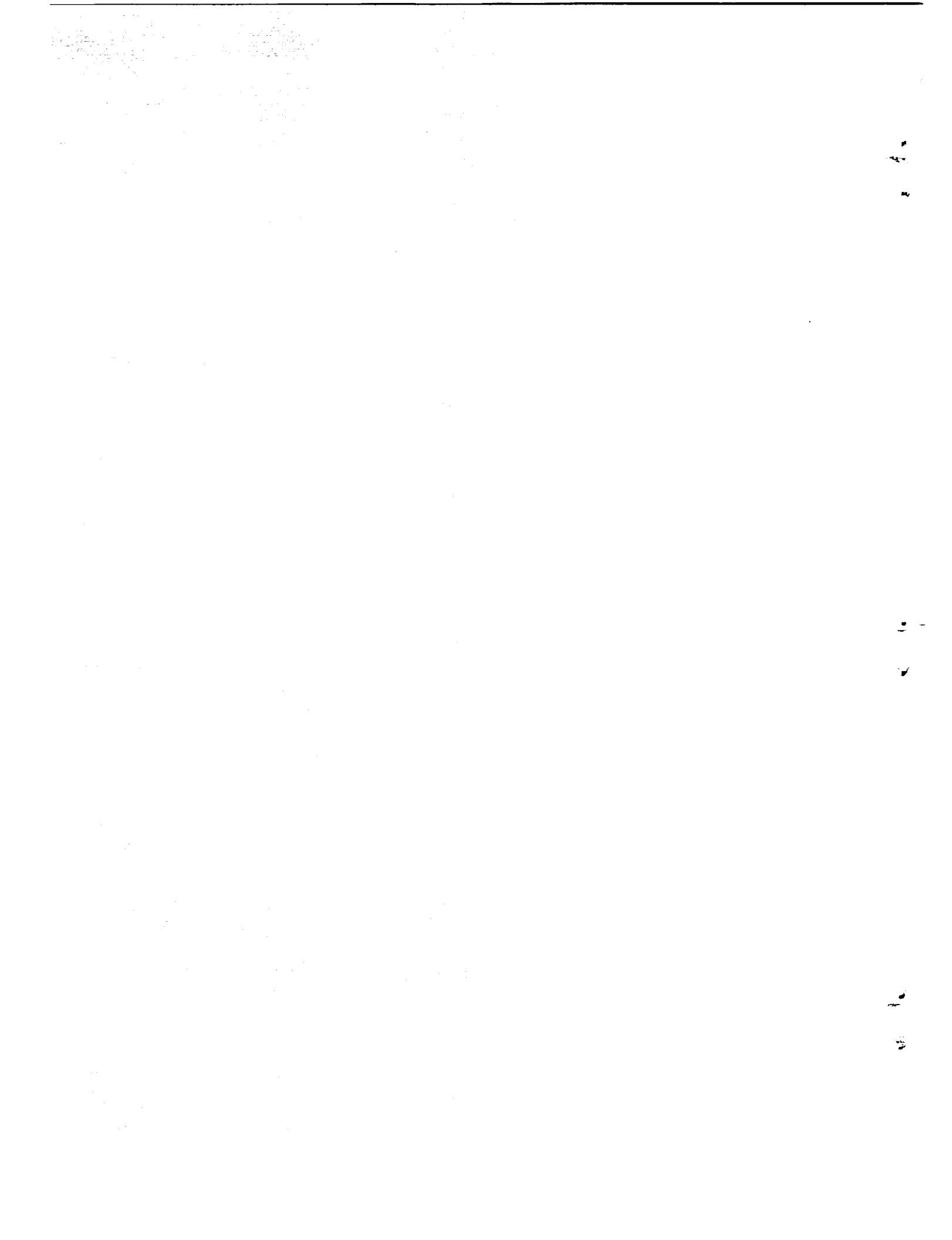
UNTWISTED WING

By John P. Mugler, Jr.

Langley Research Center
Langley Field, Va.

NATIONAL AERONAUTICS AND
SPACE ADMINISTRATION

WASHINGTON
December 1958



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SUMMARY

Pressure distributions are presented for a thin highly tapered untwisted 45° sweptback wing in combination with a body. These tests were made in the Langley 8-foot transonic pressure tunnel at both 1.0 and 0.5 atmosphere stagnation pressures at Mach numbers from 0.800 to 1.200 through an angle-of-attack range of -4° to 12°.

INTRODUCTION

A research program has been conducted at the Langley Aeronautical Laboratory to determine the loads due to wing twist at transonic and supersonic speeds. As part of this program, tests have been made on four wings: an untwisted wing to serve as a reference, and wings with linear, quadratic, and cubic variations of twist across the span. The basic pressure measurements are presented herein for the untwisted wing at transonic speeds. These data are presented without analysis. Reference 1 also presents some additional data on this untwisted wing.

SYMBOLS

b wing span

b'/2 unsupported semispan (distance from outer face of wing mounting block to tip)

c	airfoil section chord, measured parallel to plane of symmetry
\bar{c}	wing mean aerodynamic chord
c_m	wing section pitching-moment coefficient about $0.25c$, $\int_0^1 (c_{p,L} - c_{p,U})(0.25 - x/c) d \frac{x}{c}$
c_n	wing section normal-force coefficient $\int_0^1 (c_{p,L} - c_{p,U}) d \frac{x}{c}$
c_p	pressure coefficient
$c_{p,\text{sonic}}$	pressure coefficient corresponding to local Mach number of 1.0
D	diameter
l	body length
M	Mach number
q	free-stream dynamic pressure
R	Reynolds number based on \bar{c}
x	distance measured from leading edge of wing or from nose of body (positive rearward)
y	spanwise distance measured from body center line
y'	spanwise distance measured from outer face of wing mounting block
$\frac{\partial \Delta\alpha}{\partial n}$	wing-twist influence coefficient due to normal load at $0.25c$
$\frac{\partial \Delta\alpha}{\partial m}$	wing-twist influence coefficient due to moment about $0.25c$
α	angle of attack of wing-body center line

$\Delta\alpha$ angle of attack of wing station minus angle of attack of wing-body center line

Subscripts:

L lower surface

U upper surface

APPARATUS

Tunnel

The investigation was conducted in the Langley 8-foot transonic pressure tunnel. The test section of this facility is rectangular in cross section, and the upper and lower walls are slotted longitudinally to allow continuous operation through the transonic speed range with negligible effects of choking and blockage. During this investigation the tunnel was operated at stagnation pressures of approximately 1.0 and 0.5 atmospheres. The dewpoint of the tunnel air was controlled and was kept constant at approximately 0° F. The stagnation temperature of the tunnel air was automatically controlled and was kept constant and uniform across the tunnel at 123° F. Control of both dewpoint and stagnation temperature in this manner minimized humidity effects. Details of the test section are presented in reference 2.

Models

The wing tested has a sweepback of 45° of the $0.25c$ line, an aspect ratio of 4.0, and a taper ratio of 0.15. The wing section is an NACA 65A206, $a = 0$ at the root, varies linearly in thickness to an NACA 65A203, $a = 0.8$ (modified) at the 0.50 semispan station, and then the thickness ratio remains constant to the tip. No twist was built into this wing. The wing was constructed of steel and was tested as a midwing configuration. Details of the wing are shown in figure 1, and streamwise ordinates are presented in table I(a).

The wing was tested in combination with a basic body designed to have minimum wave drag for a given length and volume. The shape of the body from the leading edge of the wing to the model sting was formed by the addition of plastic inserts. The junctures between the plastic body inserts and the steel forebody and those between the inserts and a removable afterbody tail cone were filled and sanded and were kept smooth during the tests. (See fig. 2.) Ordinates for the body are presented in table I(b).

The model support sting extended from the base of the body and was, in turn, attached to the central support system of the tunnel. This support system kept the model near the center line of the tunnel throughout the angle-of-attack range.

TESTS

The wing-body combination was tested at Mach numbers from 0.800 to 1.200 at tunnel stagnation pressures of 1.0 and 0.5 atmospheres. At the stagnation pressure of 0.5 atmosphere the angle-of-attack range extended from -4° to $+12^{\circ}$. At the stagnation pressure of 1.0 atmosphere the angle-of-attack range extended from -4° to $+4^{\circ}$ at all Mach numbers. At a Mach number of 1.2 additional data were taken for angles of attack of 8° and 12° .

Transition strips were fixed on the model during all of the tests. The strips were about 0.10 inch wide and were formed by sprinkling No. 120 carborundum grains on a plastic adhesive. The strips extended from the wing-body juncture to the wing tip at 10 percent of the local chord on the upper and lower wing surfaces and formed a ring around the body at 10 percent of the body length.

The Reynolds number based on the wing mean aerodynamic chord varied over the Mach number range from about 2.6×10^6 to 2.9×10^6 during tests at 1.0 atmosphere and from about 1.3×10^6 to 1.5×10^6 during tests at 0.5 atmosphere. (See fig. 3.)

MEASUREMENTS AND ACCURACY

Measurements of the local static pressures on the model were made by using flush-mounted orifices distributed over the upper and lower wing surfaces and along longitudinal body rows. Figure 2 shows the location of the six stations on the wing and five rows on the body where the orifices were located. Pressure coefficients determined from these measurements are estimated to be accurate within ± 0.006 .

The angle of attack of the model was measured by using a strain-gage attitude transmitter mounted in the nose of the model and is estimated to be accurate within $\pm 0.1^{\circ}$. Calibrations of the tunnel test section indicate that local deviations from the average free-stream Mach number are of the order of ± 0.005 at subsonic speeds. With increases in Mach number, these deviations increased but did not exceed ± 0.010 in the region of the wing at $M = 1.2$. Several representative Mach num-

ber distributions at the center of the test section are presented in reference 2. The average free-stream Mach number was held to within ± 0.003 of the nominal values shown on the figures.

The stagnation pressures of 2,116 and 1,058 pounds per square foot have been designated 1.0 and 0.5 atmospheres, respectively, throughout this study. During the tests the stagnation pressure was generally held to within ± 10 pounds per square foot during tests at 0.5 atmosphere and to within ± 20 pounds per square foot during tests at 1.0 atmosphere.

Influence coefficients were obtained for this wing from a static calibration and are presented in table II. Wing-twist angles, computed by using the experimental wing section data in conjunction with the influence coefficients of table II, are estimated to be accurate to within about $\pm 0.25^\circ$.

RESULTS

The pressure coefficients for the wing in the presence of the body are presented in tables III and IV for stagnation pressures of 0.5 and 1.0 atmosphere, respectively. Pressure coefficients for the body in the presence of the wing are presented in tables V and VI for stagnation pressures of 0.5 and 1.0 atmosphere, respectively. The values of the free-stream dynamic pressure shown in the tables is the average value over the angle-of-attack range. The pressure coefficients have been plotted in order to show the pressure-coefficient distributions over the surfaces and are presented in figure 4 for the wing and in figure 5 for the body. The distributions over the wing (fig. 4) have been numerically integrated for section normal force and section pitching moment about $0.25c$, and the results are presented in table VII. The section data were used in conjunction with the influence coefficients of table II to calculate the change in angle of attack at several wing stations, and these values are also presented in table VII.

In figures 4 and 5 data are presented for both stagnation pressures in the same figure. Fixing transition during the tests tended to minimize the effects of Reynolds number on the pressure coefficients. This fact is evident from figures 4 and 5 which show that in all cases changing the stagnation pressure from 0.5 to 1.0 atmosphere had no significant effects on the pressure coefficients over the body or over the inboard wing stations. Aeroelastic effects caused the wing to twist over the outboard regions. The results given in table VII show that outboard wing sections are generally operating at a lesser angle of attack at 1.0 atmosphere stagnation pressure than at 0.5 atmosphere because of the differences in dynamic pressure. Therefore, the differences in the pressure distributions over the outboard wing sections at

the two different stagnation pressures in figure 4 should be attributed to the differences in local angle of attack and not to Reynolds number effects.

Langley Research Center,
National Aeronautics and Space Administration,
Langley Field, Va., August 5, 1958.

REFERENCES

1. Fischetti, Thomas L.: Investigation at Mach Numbers From 0.80 to 1.43 of Pressure and Load Distributions over a Thin 45° Sweptback Highly Tapered Wing in Combination With Basic and Indented Bodies. NACA RM L57D29a, 1957.
2. Mugler, John P., Jr.: Transonic Wind-Tunnel Investigation of the Aerodynamic Loading Characteristics of a 60° Delta Wing in the Presence of a Body With and Without Indentation. NACA RM L55G11, 1955.

TABLE I.- WING AND BODY ORDINATES

(a) Wing Ordinates

$\frac{x}{c}$, percent chord	Ordinate, percent chord					
	$0\frac{b}{2}$	$0.12\frac{b}{2}$	$0.25\frac{b}{2}$	$0.40\frac{b}{2}$	$0.50\frac{b}{2}$	$0.60\frac{b}{2}$ to $1.00\frac{b}{2}$
Upper surface	Lower surface	Upper surface	Lower surface	Upper surface	Lower surface	Lower surface
0	0	0	0	0	0	0
.25	.47	-.25	.43	-.24	.37	-.21
.50	.62	-.36	.57	-.33	.51	-.30
.75	.75	-.43	.68	-.40	.61	-.35
1.00	.96	-.53	.89	-.49	.79	-.42
1.25	1.37	-.67	1.28	-.62	1.14	-.54
1.50	1.95	-.85	1.81	-.70	1.63	-.67
1.75	2.76	-.1.08	2.58	-.97	2.32	-.82
2.00	3.31	-.1.25	3.09	-.1.12	2.80	-.93
2.25	3.71	-.1.41	3.48	-.1.25	3.16	-.1.03
2.50	4.15	-.1.64	3.91	-.1.44	3.58	-.1.15
2.75	4.23	-.1.77	4.01	-.1.53	3.69	-.1.21
3.00	3.93	-.1.72	3.74	-.1.47	3.49	-.1.12
3.25	5.00	-.1.56	5.23	-.1.28	5.05	-.09
3.50	6.00	-.1.36	5.52	-.1.28	5.05	-.04
3.75	7.00	-.1.22	5.23	-.099	4.45	-.049
4.00	8.00	-.84	1.71	-.67	1.67	-.43
4.25	8.50	-.45	.84	-.35	.83	-.23
4.50	9.00	-.01	.01	-.01	.01	-.01
4.75	10.00					

TABLE I.- WING AND BODY ORDINATES - Concluded

(b) Body Ordinates

x, in.	Radius, in.	x, in.	Radius, in.
0	0	17.0	1.575
.5	.165	17.5	1.585
1.0	.282	18.0	1.590
1.5	.378	18.5	1.598
2.0	.460	19.0	1.602
2.5	.540	19.5	1.606
3.0	.612	20.0	1.606
3.5	.680	20.5	1.604
4.0	.743	21.0	1.602
4.5	.806	21.5	1.600
5.0	.862	22.0	1.594
5.5	.917	22.5	1.587
6.0	.969	23.0	1.578
6.5	1.015	23.5	1.570
7.0	1.062	24.0	1.560
7.5	1.106	24.5	1.547
8.0	1.150	25.0	1.532
8.5	1.187	25.5	1.517
9.0	1.222	26.0	1.501
9.5	1.257	26.5	1.480
10.0	1.290	27.0	1.460
10.5	1.320	27.5	1.438
11.0	1.350	28.0	1.414
11.5	1.376	28.5	1.387
12.0	1.404	29.0	1.360
12.5	1.430	29.5	1.330
13.0	1.452	30.0	1.300
13.5	1.476	31.0	1.231
14.0	1.493	32.0	1.158
14.5	1.512	33.0	1.076
15.0	1.526	34.0	.984
15.5	1.540	35.0	.878
16.0	1.552	36.0	.762
16.5	1.565	36.15	.750

TABLE II.- WING DEFLECTION CHARACTERISTICS

		Rate of change in twist angle due to a load at section quarter chord, $\frac{\Delta\alpha}{\Delta m}$, deg/lb, at -			
Twist measurement station, $\frac{y}{b/2}$	$\frac{y'}{b'/2} = 0.185$	$\frac{y'}{b'/2} = 0.348$	$\frac{y'}{b'/2} = 0.565$	$\frac{y'}{b'/2} = 0.795$	$\frac{y'}{b'/2} = 0.948$
0.25	-0.0001	-0.0002	-0.0005	-0.0014	-0.0040
.40	0	-.0002	-.0011	-.0032	-.0088
.60	.0003	-.0002	-.0014	-.0129	-.0215
.80	.0003	-.0001	-.0015	-.0182	-.0638
.95	.0005	0	-.0014	-.0173	-.0950
1.00	.0002	-.0001	-.0008	-.0160	-.0850

		Rate of change in twist angle due to a pitching moment about section quarter chord, $\frac{\Delta\alpha}{\Delta m}$, deg/in-lb, at -			
Twist measurement station, $\frac{y}{b/2}$	$\frac{y'}{b'/2} = 0.185$	$\frac{y'}{b'/2} = 0.348$	$\frac{y'}{b'/2} = 0.565$	$\frac{y'}{b'/2} = 0.795$	$\frac{y'}{b'/2} = 0.948$
0.25	0.0001	0.0001	0.0002	0.0004	-0.0009
.40	.0001	.0004	.0009	.0015	-.0029
.60	.0002	.0006	.0020	.0048	.0098
.80	.0003	.0007	.0039	.0186	.0334
.95	.0003	.0007	.0043	.0257	.1156
1.00	.0003	.0007	.0044	.0284	.1436

TABLE III.- PRESSURE COEFFICIENTS AT STAGNATION PRESSURE
OF 0.5 ATMOSPHERE FOR WING IN PRESENCE OF BODY

(a) 12-percent-semispan station

x/c	$\alpha = -4^\circ$	$\alpha = -2^\circ$	$\alpha = 0^\circ$	$\alpha = 2^\circ$	$\alpha = 4^\circ$	$\alpha = 8^\circ$	$\alpha = 12^\circ$	$\alpha = -4^\circ$	$\alpha = -2^\circ$	$\alpha = 0^\circ$	$\alpha = 2^\circ$	$\alpha = 4^\circ$	$\alpha = 8^\circ$	$\alpha = 12^\circ$	x/c
$M = 0.800; q = 314 \text{ lb/sq ft}$															
Upper surface															
.000	.194	.374	.528	.538	.530	.508	.291	.307	.563	.560	.552	.602	.441	.000	
.022	.381	.280	.163	.024	.133	.542	-1.297	.395	.298	.187	.068	-.075	-.430	-1.017	.022
.072	.211	.125	.033	-.068	-.166	-.373	-.556	.224	.140	.052	-.034	-.125	-.281	-.456	.072
.150	.090	.016	-.060	-.146	-.222	-.381	-.571	.100	.023	-.055	-.133	-.201	-.316	-.442	.150
.250	.022	-.043	-.111	-.187	-.254	-.411	-.553	.022	-.048	-.117	-.184	-.245	-.339	-.486	.250
.350	-.032	-.090	-.149	.215	-.280	-.433	-.583	.039	-.105	-.169	-.234	-.299	-.398	-.536	.350
.449	-.055	-.111	-.164	-.225	-.284	-.429	-.504	.068	-.129	-.192	-.255	-.307	-.415	-.542	.449
.549	-.091	-.143	-.188	-.248	-.303	-.432	-.543	.115	-.179	-.248	-.327	-.377	-.469	-.594	.549
.652	-.085	-.127	-.168	-.219	-.261	-.352	-.419	.113	-.149	-.233	-.317	-.389	-.483	-.561	.652
.752	-.072	-.133	-.139	-.182	-.209	-.267	-.363	.097	-.143	-.195	-.256	-.389	-.503	-.529	.752
.846	-.045	-.075	-.097	-.127	-.145	-.186	-.274	.156	-.103	-.137	-.169	-.233	-.457	-.443	.846
.924	-.032	-.050	-.059	-.079	-.087	-.107	-.177	.049	-.069	-.083	-.101	-.104	-.182	-.246	.924
$M = 0.900; q = 357 \text{ lb/sq ft}$															
Lower surface															
.018	-.544	-.197	-.012	.102	.222	.434	.613	.472	-.178	.008	.105	.237	.448	.627	.018
.069	.283	.174	-.055	.025	.113	.289	.458	.264	.169	-.060	.019	.122	.297	.466	.069
.145	-.227	-.150	-.053	.007	.083	.223	.370	.229	.163	-.067	-.011	.083	.234	.382	.145
.250	-.221	-.161	-.076	-.021	.043	.173	.296	.251	-.188	-.100	-.048	.039	.182	.306	.250
.349	-.207	-.143	-.078	-.028	.027	.159	.256	.245	-.184	-.105	-.053	.023	.148	.267	.349
.448	-.200	-.143	-.083	-.037	.014	.118	.217	.273	-.191	-.116	-.069	.003	.120	.226	.448
.549	-.142	-.089	-.049	.000	.097	.178	.200	-.133	-.080	-.080	-.016	.093	.185	.549	.550
.650	-.113	-.081	-.047	-.021	.014	.081	.139	.153	-.114	-.076	-.041	.004	.081	.140	.750
.750	-.076	-.055	-.026	-.006	.017	.067	.106	.098	-.074	-.048	-.026	.011	.064	.101	.848
.848	-.049	-.032	-.008	.003	.026	.068	.091	.065	-.047	-.027	-.009	.019	.062	.088	.899
$M = 0.940; q = 370 \text{ lb/sq ft}$															
Upper surface															
.000	.351	.469	.583	.582	.561	.612	.613	.409	.517	.619	.613	.597	.657	.571	.000
.022	.407	.314	.206	.091	-.042	-.395	-.998	.439	.350	.243	.138	.014	-.345	-.793	.022
.072	.232	.152	.089	-.013	-.101	-.252	-.414	.267	.187	.108	.033	-.044	-.200	-.343	.072
.150	.102	.030	-.043	-.116	-.182	-.291	-.417	.139	.069	-.004	-.073	-.132	-.238	-.437	.150
.250	.021	-.042	-.107	-.165	-.218	-.328	-.433	.012	-.009	-.072	-.117	-.170	-.279	-.459	.250
.350	-.043	-.102	-.168	-.222	-.281	-.380	-.502	.048	-.103	-.157	-.207	-.253	-.347	-.434	.350
.449	-.086	-.136	-.192	-.241	-.296	-.392	-.506	.129	-.181	-.229	-.280	-.320	-.407	-.493	.449
.549	-.139	-.210	-.266	-.310	-.361	-.456	-.561	.142	-.202	-.249	-.297	-.339	-.423	-.499	.552
.652	-.142	-.209	-.284	-.333	-.382	-.472	-.568	.159	-.219	-.273	-.325	-.364	-.451	-.529	.752
.752	-.124	-.189	-.288	-.348	-.400	-.494	-.561	.161	-.224	-.278	-.328	-.373	-.459	-.539	.846
.846	-.091	-.134	-.235	-.342	-.396	-.505	-.586	.171	-.229	-.282	-.329	-.370	-.456	-.531	.924
.924	-.065	-.080	-.109	-.248	-.350	-.480	-.461								
$M = 0.980; q = 389 \text{ lb/sq ft}$															
Lower surface															
.018	-.418	-.121	-.032	.132	.241	.447	.641	.336	-.085	.073	.167	.274	.480	.667	.018
.069	.245	.144	-.044	.038	.123	.298	.478	.190	-.105	-.009	.065	.154	.331	.505	.069
.145	-.222	-.143	-.055	-.009	.082	.234	.399	.169	-.114	-.027	.026	.111	.275	.423	.145
.250	-.243	-.181	-.098	-.035	.031	.171	.321	.199	-.147	-.080	-.017	.058	.206	.348	.250
.349	-.254	-.185	-.112	-.052	-.012	.143	.279	.215	-.162	-.092	-.038	.027	.169	.305	.349
.448	-.264	-.196	-.129	-.075	-.012	.111	.234	.229	-.176	-.112	-.060	.001	.137	.263	.448
.549	-.299	-.240	-.169	-.096	-.036	.081	.194	.270	-.218	-.161	-.112	-.044	.097	.221	.549
.650	-.294	-.178	-.093	-.051	-.014	.062	.146	.278	-.237	-.171	-.124	-.043	.077	.178	.650
.750	-.215	-.084	-.055	-.032	-.016	.041	.108	.298	-.248	-.186	-.137	-.041	.052	.140	.848
.848	-.110	-.045	-.029	-.020	-.007	.034	.090	.295	-.243	-.181	-.124	-.036	.046	.121	.899

TABLE III.-- PRESSURE COEFFICIENTS AT STAGNATION PRESSURE OF
 0.5 ATMOSPHERE FOR LIDING IN PRESENCE OF BODY. Continued

x/c	$\alpha = -1^\circ$	$\alpha = -2^\circ$	$\alpha = 0^\circ$	$\alpha = 2^\circ$	$\alpha = 4^\circ$	$\alpha = 80$	$\alpha = 12^\circ$	x/c
M = 1.050; q = 398 lb/sq ft								
Upper surface								
.000	.452	.557	.653	.658	.632	.687	.611	
.022	.466	.584	.279	.186	.069	.269	.752	
.072	.296	.229	.150	.083	.012	.140	.299	
.150	.169	.108	.038	-.023	-.080	-.177	.290	
.250	.085	.034	-.026	-.067	-.119	-.218	.315	
.350	.021	-.030	-.090	-.133	-.183	-.273	.378	
.449	-.017	-.060	-.115	-.156	-.201	-.291	.387	
.549	-.095	-.135	-.182	-.220	-.265	-.348	.444	
.652	-.111	-.159	-.203	-.241	-.283	-.364	.457	
.752	-.128	-.178	-.233	-.273	-.316	-.391	.482	
.846	-.135	-.185	-.236	-.280	-.326	-.403	.488	
.924	-.144	-.193	-.242	-.281	-.323	-.400	-.487	
Lower surface								
.018	-.240	-.054	.114	.212	.305	.510	.696	
.069	-.132	-.063	.038	.111	.189	.361	.536	
.145	-.109	-.069	.016	.068	.141	.301	.457	
.250	-.145	-.104	-.034	.022	.086	.292	.380	
.349	-.163	-.119	-.051	.004	.064	.198	.339	
.448	-.177	-.137	-.072	-.018	.032	.165	.296	
.549	-.225	-.179	-.118	-.067	-.015	.129	.253	
.650								
.750	-.231	-.194	-.133	-.090	-.029	.110	.212	
.848	-.251	-.212	-.151	-.105	-.039	.086	.176	
.899	-.251	-.212	-.150	-.096	-.030	.084	.159	
M = 1.200; q = 439 lb/sq ft								
Upper surface								
.000	.518	.587	.650	.628	.607	.687	.704	
.022	.424	.336	.225	.117	.011	.221	-.455	
.072	.285	.240	.153	.057	.003	-.164	-.298	
.150	.171	.121	.065	.026	-.031	-.113	-.212	
.250	.141	.097	.025	-.028	-.072	-.152	-.222	
.350	.075	.035	-.026	-.067	-.113	-.193	-.250	
.449	.055	.019	-.040	-.082	-.125	-.197	-.263	
.549	-.002	-.043	-.095	-.133	-.175	-.244	-.300	
.652	-.017	-.052	-.103	-.149	-.184	-.250	-.308	
.752	-.054	-.082	-.131	-.162	-.196	-.263	-.325	
.846	-.070	-.101	-.152	-.183	-.215	-.284	-.343	
.924	-.070	-.101	-.149	-.178	-.214	-.278	-.342	
Lower surface								
.018	-.170	-.047	.112	.170	.251	.430	.623	
.069	-.106	-.061	.015	.076	.140	.297	.472	
.145	-.075	-.037	.040	.075	.119	.246	.411	
.250	-.080	-.058	.006	.050	.100	.221	.360	
.349	-.091	-.064	-.005	.041	.088	.209	.338	
.448	-.108	-.080	-.019	.034	.078	.191	.310	
.549	-.137	-.108	-.053	-.006	.040	.169	.272	
.650								
.750	-.145	-.121	-.069	-.021	.022	.119	.235	
.848	-.143	-.126	-.081	-.045	-.009	.093	.235	
.899	-.151	-.119	-.073	-.044	-.004	.104	.245	

TABLE III.- PRESSURE COEFFICIENTS AT STAGNATION PRESSURE OF
0.5 ATMOSPHERE FOR WING IN PRESENCE OF BODY - Continued

(b) 25-percent-semispan station

x/c	$\alpha = -4^\circ$	$\alpha = -2^\circ$	$\alpha = 0^\circ$	$\alpha = 2^\circ$	$\alpha = 4^\circ$	$\alpha = 8^\circ$	$\alpha = 12^\circ$	$\alpha = -4^\circ$	$\alpha = -2^\circ$	$\alpha = 0^\circ$	$\alpha = 2^\circ$	$\alpha = 4^\circ$	$\alpha = 8^\circ$	$\alpha = 12^\circ$	x/c		
$M = 0.800; q = 311 \text{ lb/sq ft}$								$M = 0.900; q = 357 \text{ lb/sq ft}$									
Upper surface	.000	-.032	.054	.442	.694	.612	.088	-.318	-.049	.080	.419	.503	.632	.244	-.117	.000	
	.027	.292	.201	.060	-.131	-.378	-.951	-.1354	.291	.194	.065	-.098	-.325	-.906	-.1463	.027	
	.076	.153	.064	-.048	-.172	-.316	-.638	-.1289	.150	.067	-.044	-.158	-.291	-.554	-.1042	.076	
	.151	.068	-.017	-.105	-.203	-.311	-.556	-.1195	.063	-.020	-.113	-.202	-.297	-.471	-.946	.151	
	.250	-.025	-.102	-.177	-.257	-.342	-.552	-.930	.035	-.115	-.196	-.267	-.380	-.507	-.883	.250	
	.350	-.055	-.127	-.191	-.289	-.343	-.529	-.352	.073	-.154	-.237	-.328	-.395	-.523	-.845	.350	
	.453	-.086	-.142	-.200	-.289	-.331	-.477	-.406	.111	-.177	-.251	-.337	-.420	-.551	-.871	.453	
	.551	-.100	-.145	-.194	-.250	-.307	-.403	-.545	.126	-.187	-.264	-.350	-.430	-.551	-.860	.551	
	.652	-.077	-.113	-.150	-.195	-.234	-.303	-.414	.130	-.148	-.199	-.286	-.426	-.585	-.847	.652	
	.750	-.065	-.096	-.124	-.154	-.181	-.227	-.382	.087	-.129	-.164	-.201	-.320	-.531	-.854	.750	
	.850	-.034	-.049	-.069	-.092	-.105	-.129	-.241	.047	-.074	-.090	-.113	-.177	-.321	-.850	.850	
	.925	-.001	-.009	-.022	-.035	-.034	-.052	-.134	.009	-.021	-.026	-.039	-.030	-.041	-.192	.925	
$M = 0.940; q = 370 \text{ lb/sq ft}$								$M = 0.980; q = 389 \text{ lb/sq ft}$									
Upper surface	.025	-.655	-.434	-.153	.025	.190	.388	.499	.649	-.484	-.180	-.018	.172	.390	.511	.025	
	.074	-.548	-.277	-.102	-.004	.102	.277	.413	.468	-.305	-.126	-.040	.091	.282	.416	.074	
	.151	-.386	-.215	-.088	-.008	.084	.227	.345	.381	-.259	-.118	-.041	.069	.232	.354	.151	
	.248	-.236	-.179	-.089	-.026	.042	.165	.280	.337	-.233	-.121	-.045	.030	.168	.283	.248	
	.347	-.210	-.164	-.088	-.033	.026	.139	.239	.295	-.218	-.126	-.071	.007	.195	.261	.347	
	.445	-.188	-.143	-.080	-.035	.017	.118	.203	.380	-.204	-.124	-.070	-.001	.107	.207	.445	
	.552	-.150	-.114	-.062	-.024	.020	.105	.173	.420	-.165	-.101	-.058	.002	.097	.175	.552	
	.650	-.107	-.078	-.035	-.004	.031	.105	.158	.511	-.114	-.062	-.030	.018	.099	.158	.650	
	.754	-.032	-.013	-.017	-.038	.071	.122	.161	.556	-.056	-.037	-.004	.021	.061	.118	.754	
	.850	-.008	.003	.028	.042	.060	.101	.114	.609	-.019	-.004	.017	.033	.060	.095	.609	
	.900	.021	.035	.050	.063	.075	.103	.102	.649	-.021	-.024	.042	.053	.077	.097	.649	
$M = 0.940; q = 370 \text{ lb/sq ft}$								$M = 0.980; q = 389 \text{ lb/sq ft}$									
Lower surface	.000	-.039	.122	.383	.690	.679	.377	-.058	.009	.141	.439	.672	.722	.342	.068	.000	
	.027	.292	.202	.074	-.077	-.287	-.804	-.1115	.319	.232	.114	-.030	-.218	-.773	-.989	.027	
	.076	.148	.063	-.041	-.144	-.263	-.472	-.982	.179	.097	-.001	-.105	-.211	-.417	-.822	.076	
	.151	.057	-.020	-.112	-.185	-.276	-.438	-.881	.286	.012	-.072	-.143	-.229	-.369	-.679	.151	
	.250	-.042	-.121	-.191	-.251	-.338	-.482	-.803	.317	-.084	-.154	-.224	-.294	-.427	-.669	.250	
	.350	-.093	-.178	-.261	-.315	-.374	-.497	-.622	.386	-.154	-.221	-.269	-.329	-.446	-.586	.350	
	.453	-.128	-.211	-.283	-.346	-.412	-.524	-.603	.452	-.122	-.188	-.257	-.316	-.440	-.570	.452	
	.551	-.162	-.227	-.303	-.364	-.423	-.531	-.589	.510	-.160	-.218	-.278	-.331	-.489	-.580	.551	
	.652	-.120	-.196	-.305	-.374	-.431	-.543	-.583	.569	-.169	-.230	-.292	-.347	-.498	-.501	.569	
	.750	-.114	-.161	-.292	-.371	-.431	-.538	-.556	.616	-.186	-.245	-.302	-.356	-.499	-.561	.750	
	.850	-.064	-.080	-.119	-.299	-.407	-.506	-.531	.675	-.175	-.230	-.287	-.340	-.489	-.562	.850	
	.925	-.012	-.017	-.023	-.071	-.184	-.255	-.324	.713	-.223	-.272	-.312	-.353	-.422	-.491	.723	
$M = 0.940; q = 370 \text{ lb/sq ft}$								$M = 0.980; q = 389 \text{ lb/sq ft}$									
Lower surface	.025	-.637	-.457	-.176	.001	.164	.377	.523	.585	-.436	-.158	-.016	.175	.408	.548	.025	
	.074	-.458	-.275	-.118	-.027	-.085	.264	.423	.639	-.247	-.091	-.009	.102	.300	.449	.074	
	.151	-.367	-.257	-.123	-.035	-.062	.219	.369	.704	-.215	-.114	-.019	.077	.254	.390	.151	
	.248	-.340	-.239	-.132	-.063	-.016	.160	.293	.730	-.221	-.120	-.053	.026	.185	.318	.248	
	.347	-.319	-.216	-.148	-.082	-.008	.120	.247	.784	-.204	-.119	-.075	-.009	.142	.273	.347	
	.445	-.324	-.246	-.165	-.086	-.021	.097	.215	.820	-.290	-.236	-.162	-.111	-.037	.112	.239	.445
	.552	-.316	-.249	-.135	-.075	-.019	.081	.184	.861	.301	-.251	-.182	-.128	-.046	.093	.209	.552
	.650	-.304	-.171	-.080	-.044	-.005	.078	.161	.894	.294	-.246	-.184	-.129	-.032	.088	.192	.650
	.754	-.169	-.036	-.012	-.011	-.037	.096	.164	.921	.271	-.218	-.131	-.089	-.009	.103	.193	.754
	.850	-.021	.003	.018	.029	.035	.067	.113	.958	.269	-.214	-.140	-.076	.004	.066	.140	.850
	.900	.025	.037	.044	.053	.045	.060	.092	.985	.228	-.177	-.107	-.049	.006	.057	.116	.900

TABLE III-- PRESSURE COEFFICIENTS AT STAGNATION PRESSURE OF
 0.5 ATMOSPHERE FOR WING IN PRESENCE OF BODY - Continued

(b) 25-percent-semispan station - Concluded

TABLE III.- PRESSURE COEFFICIENTS AT STAGNATION PRESSURE OF
 0.5 ATMOSPHERE FOR WING IN PRESENCE OF BODY - Continued

(c) 40-percent-semispan station

TABLE III.—PRESSURE COEFFICIENTS AT STAGNATION PRESSURE OF
0.5 ATMOSPHERE FOR WINGS IN FREQUENCY OF DOWNS. (Continued)

(c) 40-percent-semispan station - concluded

x/c	$\alpha = -4^\circ$	$\alpha = -2^\circ$	$\alpha = 0^\circ$	$\alpha = 2^\circ$	$\alpha = 4^\circ$	$\alpha = 8^\circ$	$\alpha = 12^\circ$	x/c
M = 1.050; q = 398 lb/sq ft								
Upper surface								
.000	.422	.494	.498	.494	.502	.4225	.489	
.023	.333	.262	.145	-.002	-.226	-.069	-.114	
.077	.160	.085	-.016	-.146	-.290	-.796	-.1087	
.149	.059	.003	-.096	-.178	-.287	-.468	-.970	
.249	.016	-.075	-.155	-.227	-.318	-.474	-.884	
.353	-.086	-.135	-.199	-.262	-.330	-.461	-.665	
.449	-.127	-.188	-.249	-.308	-.374	-.495	-.644	
.552	-.140	-.197	-.269	-.329	-.391	-.514	-.631	
.650	-.141	-.196	-.264	-.317	-.377	-.491	-.612	
.755	-.175	-.220	-.286	-.338	-.387	-.491	-.587	
.852	-.185	-.227	-.296	-.345	-.393	-.491	-.544	
.929	-.157	-.188	-.235	-.267	-.316	-.360	-.358	
Lower surface								
.023	-.524	-.468	-.288	-.027	.159	.413	.545	
.073	-.431	-.374	-.118	-.001	.108	.318	.466	
.149	-.396	-.273	-.112	-.008	.074	.269	.405	
.247	-.346	-.246	-.109	-.040	.038	.208	.337	
.353	-.349	-.248	-.135	-.070	-.003	.169	.294	
.449	-.327	-.254	-.156	-.095	-.017	.146	.262	
.550	-.312	-.243	-.153	-.091	-.020	.130	.237	
.650	-.290	-.221	-.138	-.081	-.003	.125	.219	
.750	-.216	-.166	-.094	-.034	.026	.088	.149	
.850	-.155	-.119	-.061	-.016	.024	.071	.117	
M = 1.200; q = 439 lb/sq ft								
Upper surface								
.000	.542	.562	.555	.594	.545	.219	.332	
.023	.389	.327	.227	.097	-.069	-.477	-.677	
.077	.226	.160	.058	-.040	-.150	-.465	-.655	
.149	.131	.082	-.016	-.081	-.174	-.401	-.596	
.249	.061	.007	-.070	-.140	-.201	-.342	-.580	
.353	.010	-.031	-.102	-.155	-.219	-.326	-.563	
.449	-.034	-.114	-.142	-.200	-.259	-.358	-.539	
.552	-.068	-.108	-.169	-.232	-.282	-.382	-.410	
.650	-.069	-.106	-.174	-.223	-.289	-.360	-.414	
.755	-.093	-.123	-.182	-.228	-.273	-.350	-.413	
.852	-.108	-.139	-.197	-.236	-.274	-.349	-.414	
.929	-.104	-.135	-.188	-.226	-.260	-.330	-.386	
Lower surface								
.023	-.576	-.559	-.253	-.007	.157	.415	.559	
.073	-.410	-.340	-.059	.044	.139	.327	.469	
.149	-.249	-.176	-.047	.046	.108	.281	.403	
.247	-.179	-.143	-.042	.029	.094	.221	.349	
.353	-.199	-.151	-.061	.003	.057	.178	.310	
.449	-.199	-.160	-.076	-.026	.021	.142	.280	
.550	-.205	-.169	-.095	-.035	.014	.134	.283	
.650	-.166	-.145	-.079	-.033	.011	.129	.281	
.750	-.134	-.095	-.031	.019	.063	.187	.268	
.850	-.112	-.081	-.015	.033	.074	.180	.249	

TABLE III.- PRESSURE COEFFICIENTS AT STAGNATION PRESSURE OF

0.5 ATMOSPHERE FOR WING IN PRESENCE OF BODY - Continued

(d) 60-percent-semispan station

x/c	$\alpha = -4^\circ$	$\alpha = -2^\circ$	$\alpha = 0^\circ$	$\alpha = 2^\circ$	$\alpha = 4^\circ$	$\alpha = 8^\circ$	$\alpha = 12^\circ$	$\alpha = -4^\circ$	$\alpha = -2^\circ$	$\alpha = 0^\circ$	$\alpha = 2^\circ$	$\alpha = 4^\circ$	$\alpha = 8^\circ$	$\alpha = 12^\circ$	x/c
$M = 0.800; q = 514 \text{ lb/sq ft}$															
Upper surface															
.000	.296	.466	.518	.420	.161	.969	.875	.292	.454	.505	.434	.030	.979	.875	.000
.023	.317	.228	.013	.381	.802	.002	.842	.315	.221	.003	.388	.847	.147	.883	.023
.076	.192	.099	.060	.257	.604	.948	.828	.190	.087	.082	.285	.694	.108	.869	.076
.150	.091	.009	.117	.265	.479	.926	.805	.090	.005	.145	.317	.556	.048	.782	.150
.250	.026	.046	.145	.257	.399	.924	.781	.022	.063	.183	.328	.523	.976	.748	.250
.349	-.011	-.081	-.163	-.257	-.366	-.906	-.749	-.022	-.096	-.201	-.317	-.592	-.903	-.722	.349
.450	-.022	-.078	-.147	-.226	-.308	-.833	-.685	-.035	-.099	-.179	-.270	-.681	-.791	-.644	.450
.550	-.062	-.105	-.161	-.225	-.286	-.767	-.686	-.073	-.128	-.196	-.272	-.322	-.743	-.674	.550
.650															
.750	-.054	-.083	-.113	-.150	-.174	-.502	-.603	-.067	-.098	-.134	-.171	-.171	-.566	-.620	.750
.850	-.079	-.050	-.069	-.089	-.109	-.343	-.566	-.041	-.062	-.077	-.100	-.101	-.457	-.594	.850
.900	-.010	-.025	-.037	-.052	-.068	-.245	-.537	-.015	-.034	-.088	-.057	-.057	-.386	-.571	.900
.925															
Lower surface															
.038	.504	.463	.117	.087	.241	.388	.461	.702	.574	.185	.024	.210	.364	.432	.038
.091	-.479	-.377	-.044	.073	.192	.328	.398	.678	-.448	-.076	.022	.169	.310	.384	.091
.147	-.477	-.304	-.061	.046	.143	.267	.337	.694	-.395	-.096	.002	.118	.252	.329	.147
.252	-.442	-.096	-.050	.061	.141	.216	.324	.667	-.199	-.072	.000	.129	.202	.270	.252
.348	-.414	-.117	-.024	.035	.097	.188	.243	.430	-.176	-.050	.013	.086	.177	.232	.348
.447	-.286	-.074	-.001	.048	.096	.171	.208	.168	-.100	-.019	.027	.089	.160	.201	.447
.549	-.176	-.027	.023	.061	.102	.158	.177	.001	-.039	-.012	.053	.098	.152	.173	.549
.655	-.073	.006	.045	.073	.104	.146	.140	.044	-.047	-.074	.095	.116	.117	.081	.655
.798	.016	.050	.076	.093	.114	.127	.074	.063	-.066	-.081	.092	.109	.084	.027	.798
.875	.045	.063	.083	.093	.107	.105	.008								
$M = 0.940; q = 370 \text{ lb/sq ft}$															
Upper surface															
.000	.288	.445	.488	.463	.186	.696	.949	.348	.422	.483	.467	.318	.556	.194	.000
.023	.294	.193	-.016	.344	.791	.1068	.923	.275	.185	.013	.236	.718	.142	.1071	.023
.076	.163	.058	-.110	.298	.630	.034	.888	.144	.050	-.084	.251	.504	.1087	.1025	.076
.150	.065	-.034	-.186	.329	.513	.945	.772	.038	-.051	-.170	.303	.422	.1047	.1005	.150
.250	-.003	-.090	-.236	.359	.502	.848	.755	.045	-.118	-.227	.360	.438	.999	.972	.250
.349	-.043	-.117	-.291	.392	.521	.792	.735	.124	-.182	-.271	.373	.449	.903	.926	.349
.450	-.053	-.107	-.260	.390	.507	.717	.675	.113	-.192	-.283	.375	.457	.995	.802	.450
.550	-.083	-.137	-.221	-.437	-.542	-.710	-.691	.181	-.251	-.340	-.413	-.506	-.612	-.797	.550
.650															
.750	-.072	-.104	-.141	-.191	-.473	-.600	-.651	.270	-.320	-.410	-.492	-.548	-.661	-.752	.750
.850	-.042	-.058	-.079	-.052	-.138	-.510	-.629	.223	-.263	-.387	-.467	-.536	-.650	-.727	.850
.900	-.022	-.029	-.045	-.018	-.071	-.456	-.612	.156	-.213	-.308	-.405	-.472	-.617	-.703	.900
.925															
Lower surface															
.038	-.981	-.687	-.256	.009	.173	.338	.496	-1.000	-.758	-.356	-.085	.130	.333	.450	.038
.091	-.867	-.544	-.097	.015	.134	.282	.387	-.876	-.591	-.195	-.068	.097	.280	.405	.091
.147	-.864	-.446	-.125	-.008	.090	.224	.331	-.740	-.458	-.207	-.093	.051	.219	.344	.147
.252	-.721	-.221	-.102	.026	.097	.170	.269	-.632	-.342	-.261	-.128	.058		.280	.252
.348	-.485	-.173	-.059	.007	.061	.152	.237	-.522	-.360	-.204	-.113	.018	.141	.256	.348
.447	-.030	-.077	-.020	.026	.067	.135	.209	-.355	-.309	-.194	-.095	.025	.125	.227	.447
.549	.020	-.033	.008	.049	.079	.130	.180	-.293	-.272	-.165	-.033	.033	.109	.205	.549
.655	.025	.008	.041	.072	.086	.114	.150	-.252	-.219	-.107	-.001	.034	.092	.177	.655
.798	.062	.060	.079	.103	.107	.100	.095	-.117	-.085	.001	.040	.044	.068	.133	.798
.875	.075	.073	.086	.108	.103	.072	.042	-.042	-.021	.029	.046	.029	.040	.089	.875

TABLE III.- PRESSURE COEFFICIENTS AT STAGNATION PRESSURE OF
 0.5 ATMOSPHERE FOR WING IN PRESENCE OF BODY - Continued

(d) 60-percent-semispan station - Concluded

x/c	a = -4°	a = -2°	a = 0°	a = 2°	a = 4°	a = 8°	a = 12°	
M = 1.030; q = 398 lb/sq ft								
Upper surface								
.000	.378	.474	.511	.494	.380	.394	.395	
.023	.289	.215	.047	.174	.546	.944	.1.051	
.076	.163	.082	.047	.190	.408	.900	.1.014	
.150	.054	.018	.131	.244	.353	.849	.1.043	
.250	.026	.081	.187	.281	.374	.835	.1.013	
.349	.003	.146	.230	.319	.406	.784	.968	
.450	.092	.156	.239	.322	.399	.501	.859	
.550	.160	.215	.302	.359	.450	.535	.876	
.650								
.750	.232	.286	.376	.434	.489	.588	.799	
.850	.220	.277	.353	.417	.485	.588	.755	
.900	.197	.250	.336	.400	.453	.569	.725	
.925								
Lower surface								
.038	.776	.668	.307	.063	.125	.355	.477	
.091	.642	.519	.148	.045	.095	.305	.435	
.147	.564	.397	.164	.064	.050	.248	.375	
.252	.517	.296	.086	.086	.062	.172	.317	
.348	.459	.324	.166	.087	.014	.173	.287	
.447	.325	.277	.162	.083	.023	.156	.260	
.549	.280	.247	.145	.052	.045	.147	.237	
.655	.234	.200	.103	.007	.055	.129	.206	
.798	.122	.097	.016	.038	.068	.108	.170	
.875	.073	.047	.007	.038	.056	.081	.130	
M = 1.200; q = 439 lb/sq ft								
Upper surface								
.000	.495	.541	.578	.573	.496	.108	.413	
.023	.335	.274	.135	.039	.281	.571	.709	
.076	.228	.163	.051	.071	.221	.526	.671	
.150	.124	.069	.028	.127	.226	.520	.676	
.250	.050	.000	.082	.164	.245	.509	.665	
.349	.004	.046	.132	.197	.244	.504	.661	
.450	.012	.063	.137	.198	.251	.453	.602	
.550	.063	.107	.185	.249	.299	.485	.641	
.650								
.750	.141	.173	.242	.295	.350	.404	.615	
.850	.132	.172	.253	.305	.384	.422	.616	
.900	.129	.166	.239	.296	.345	.414	.579	
.925								
Lower surface								
.038	.575	.565	.473	.018	.133	.320	.490	
.091	.498	.503	.107	.009	.116	.298	.452	
.147	.491	.382	.088	.009	.080	.238	.401	
.252	.353	.193	.091	.020	.087	.171	.352	
.348	.184	.171	.083	.027	.032	.175	.344	
.447	.165	.152	.066	.021	.026	.188	.327	
.549	.163	.138	.042	.003	.054	.206	.330	
.655	.147	.120	.041	.008	.079	.229	.316	
.798	.097	.066	.017	.074	.135	.241	.291	
.875	.059	.028	.054	.112	.160	.231	.265	
M = 1.125; q = 423 lb/sq ft								
Upper surface								
.000	.450	.515	.556	.534	.439	.130	.752	
.023	.331	.247	.103	.093	.207	.791	.928	
.076	.208	.129	.017	.116	.338	.793	.887	
.150	.104	.029	.070	.167	.273	.708	.908	
.250	.040	.038	.126	.206	.298	.679	.896	
.349	.022	.089	.169	.243	.315	.687	.857	
.450	.032	.097	.179	.246	.314	.563	.722	
.550	.096	.156	.231	.297	.373	.424	.700	
.650								
.750	.167	.229	.305	.347	.409	.504	.636	
.850	.163	.222	.388	.390	.408	.506	.676	
.900	.154	.210	.277	.331	.396	.409	.639	
.925								
Lower surface								
.038	.745	.624	.288	.042	.139	.361	.527	
.091	.639	.456	.110	.018	.121	.318	.488	
.147	.568	.351	.123	.033	.082	.262	.429	
.252	.313	.202	.130	.049	.048	.215	.380	
.348	.298	.238	.124	.046	.031	.204	.355	
.447	.276	.219	.123	.040	.023	.197	.321	
.549	.269	.200	.115	.047	.047	.205	.316	
.655	.237	.169	.090	.009	.079	.194	.291	
.798	.147	.098	.018	.059	.122	.180	.235	
.875	.092	.041	.028	.081	.121	.160	.220	

TABLE III.- PRESSURE COEFFICIENTS AT STAGNATION PRESSURE OF
 0.5 ATMOSPHERE FOR WING IN PRESENCE OF BODY - Continued

(e) 80-percent-semi-span station

x/c	$\alpha = -4^\circ$	$\alpha = -2^\circ$	$\alpha = 0^\circ$	$\alpha = 2^\circ$	$\alpha = 4^\circ$	$\alpha = 8^\circ$	$\alpha = 12^\circ$	$\alpha = -4^\circ$	$\alpha = -2^\circ$	$\alpha = 0^\circ$	$\alpha = 2^\circ$	$\alpha = 4^\circ$	$\alpha = 8^\circ$	$\alpha = 12^\circ$	x/c	
$M = 0.800; q = 314 \text{ lb/sq ft}$																
$M = 0.900; q = 357 \text{ lb/sq ft}$																
Upper surface	.025	.338	.235	.021	-.483	-.853	-.583	-.522	.347	.232	.011	-.512	-.175	-.820	-.580	.028
	.073	.195	.095	-.070	-.341	-.747	-.576	-.504	.210	.093	-.093	-.422	-.109	-.670	-.538	.073
	.146	.110	.021	-.115	-.310	-.655	-.553	-.491	.119	.010	-.140	-.359	-.893	-.646	-.521	.146
	.247	.051	-.027	-.134	-.269	-.527	-.523	-.476	.054	-.038	-.163	-.317	-.587	-.615	-.900	.247
	.352	.002	-.069	-.159	-.259	-.424	-.502	-.458	-.004	-.076	-.184	-.311	-.457	-.597	-.492	.352
	.453	-.037	-.085	-.160	-.243	-.359	-.476	-.445	-.035	-.100	-.197	-.301	-.306	-.577	-.482	.453
	.550	-.068	-.105	-.168	-.243	-.305	-.445	-.442	-.074	-.128	-.203	-.295	-.342	-.566	-.477	.550
	.603	-.081	-.106	-.165	-.220	-.270	-.453	-.436	-.083	-.125	-.196	-.270	-.306	-.557	-.474	.603
	.651	-.089	-.105	-.151	-.203	-.240	-.440	-.434	-.094	-.129	-.185	-.242	-.271	-.545	-.475	.651
	.750	-.101	-.099	-.126	-.160	-.187	-.423	-.431	-.101	-.114	-.150	-.178	-.204	-.522	-.474	.750
	.851	-.097	-.053	-.079	-.083	-.110	-.406	-.424	-.099	-.080	-.105	-.100	-.115	-.498	-.470	.851
	.900															.900
Lower surface	.061	-.320	-.295	-.039	.122	.244	.347	.382	.377	-.315	-.051	.102	.237	.374	.372	.061
	.147	-.286	-.245	-.029	.073	.185	.277	.315	.348	-.278	-.046	.047	.183	.278	.310	.147
	.248	-.287	-.218	-.003	.083	.156	.231	.263	.342	-.243	-.021	.068	.156	.224	.256	.248
	.352	-.266	-.180	-.003	.061	.123	.179	.204	.326	-.214	-.015	.046	.126	.173	.201	.352
	.453	-.269	-.136	.008	.056	.106	.142	.152	.324	-.178	-.001	.050	.108	.137	.155	.453
	.549															.549
	.612	-.223	-.071	.041	.071	.110	.105	.099	.285	-.131	.039	.053	.112	.103	.101	.612
	.706	-.229	-.026	.066	.090	.112	.074	.063	.284	-.078	.065	.087	.120	.077	.069	.706
	.791	-.211	-.005	.085	.102	.114	.043	.022	.288	-.052	.083	.096	.120	.044	.031	.791
$M = 0.940; q = 370 \text{ lb/sq ft}$																
$M = 0.980; q = 389 \text{ lb/sq ft}$																
Upper surface	.025	.347	.231	-.005	-.556	-1.038	-.931	-.626	.283	.182	.020	-.280	-.880	1.214	1.019	.028
	.073	.214	.089	-.112	-.496	-.996	-.768	-.598	.137	.035	-.129	-.345	-.776	1.133	1.062	.073
	.146	.119	.006	-.165	-.463	-.933	-.756	-.585	.034	-.066	-.206	-.573	-.738	1.110	1.046	.147
	.247	.049	-.044	-.180	-.427	-.619	-.711	-.567	-.040	-.131	-.250	-.386	-.498	1.068	1.039	.247
	.352	-.003	-.084	-.207	-.458	-.581	-.680	-.557	-.103	-.193	-.294	-.417	-.509	1.042	1.011	.352
	.453	-.038	-.107	-.220	-.455	-.613	-.655	-.543	-.156	-.235	-.336	-.441	-.537	1.007	.794	.453
	.550	-.072	-.132	-.227	-.379	-.647	-.643	-.537	-.212	-.291	-.383	-.485	-.574	1.027	.773	.550
	.603	-.083	-.135	-.215	-.270	-.559	-.630	-.534	-.239	-.313	-.408	-.502	-.593	1.004	.772	.603
	.651	-.091	-.133	-.205	-.182	-.585	-.611	-.532	-.265	-.334	-.428	-.500	-.611	1.077	.772	.651
	.750	-.096	-.117	-.176	-.127	-.181	-.541	-.527	-.265	-.362	-.418	-.450	-.641	1.052	.755	.750
	.851	-.086	-.074	-.122	-.062	-.044	-.497	-.517	-.160	-.278	-.368	-.454	-.652	1.004	.729	.851
	.900															
Lower surface	.061	-.413	-.306	-.054	.097	.203	.305	.372	.460	-.632	-.458	-.074	.182	.275	.389	.061
	.147	-.385	-.264	-.042	.065	.158	.249	.311	.622	-.573	-.248	-.101	.085	.223	.325	.147
	.248	-.368	-.224	-.020	.073	.130	.200	.260	.600	-.509	-.226	-.028	.067	.171	.277	.247
	.352	-.354	-.200	-.011	.059	.105	.155	.204	.586	-.446	-.207	-.038	.125	.226	.352	
	.453	-.352	-.168	-.002	.058	.091	.120	.161	.575	-.369	-.150	-.021	.026	.095	.187	.453
	.549															.549
	.612	-.340	-.132	.041	.078	.105	.094	.113	.536	-.279	-.005	.004	.029	.074	.143	.612
	.706	-.342	-.083	.070	.100	.112	.076	.085	.506	-.170	.042	.037	.037	.065	.120	.706
	.791	-.329	-.055	.090	.114	.117	.047	.049	.481	-.113	.065	.045	.033	.046	.093	.791

TABLE III.- PRESSURE COEFFICIENTS AT STAGNATION PRESSURE OF
 0.5 ATMOSPHERE FOR WING IN PRESENCE OF BODY - Continued

(e) 80-percent-semispan station - Concluded

TABLE III.—PRESSURE COEFFICIENTS AT STAGNATION PRESSURE OF

0.5 ATMOSPHERE FOR WING IN PRESENCE OF BODY - Continued

(f) 95-percent-semi-span station

TABLE III.- PRESSURE COEFFICIENTS AT STAGNATION PRESSURE OF

0.5 ATMOSPHERE FOR WING IN PRESENCE OF BODY - Concluded

(f) 95-percent-semispan station - Concluded

x/c	$\alpha = -4^\circ$	$\alpha = -2^\circ$	$\alpha = 0^\circ$	$\alpha = 2^\circ$	$\alpha = 4^\circ$	$\alpha = 8^\circ$	$\alpha = 12^\circ$	$\alpha = -4^\circ$	$\alpha = -2^\circ$	$\alpha = 0^\circ$	$\alpha = 2^\circ$	$\alpha = 4^\circ$	$\alpha = 8^\circ$	$\alpha = 12^\circ$	x/c	
$M = 1.050; q = 39^2 \text{ lb/sq ft}$														$M = 1.125; q = 42^2 \text{ lb/sq ft}$		
Upper surface	.071 .143 .243 .344 .446 .549 .646 .751 .800	.150 .077 .025 .108 .184 .238 .270 .332 .377	.089 .015 .087 .167 .184 .238 .324 .396 .440	-.050 -.131 -.217 -.288 -.408 -.451 -.496 -.511 -.482	-.276 -.326 -.361 -.408 -.419 -.451 -.496 -.511 -.527	-.682 -.659 -.640 -.619 -.579 -.579 -.568 -.561 -.572	-.977 -.958 -.940 -.922 -.919 -.919 -.912 -.897 -.881	-.596 -.584 -.571 -.563 -.556 -.556 -.550 -.547 -.549	.212 .147 .049 .025 .092 .166 .243 .296	.147 .077 .019 .092 .152 .223 .294 .338	.033 .040 .122 .192 .243 .308 .370 .403	-.134 -.193 -.244 -.287 -.333 -.380 -.412 -.423	-.493 -.471 -.460 -.439 -.444 -.456 -.451 -.460	-.794 -.774 -.762 -.747 -.751 -.755 -.746 -.746	-.587 -.578 -.570 -.569 -.566 -.566 -.566 -.568	.071 .143 .243 .344 .446 .549 .646 .751 .800
Lower surface	.100 .193 .248 .344 .446 .541 .587 .692	-.465 -.413 -.406 -.373 -.347 -.344 -.343 -.341	-.696 -.530 -.504 -.429 -.307 -.190 -.151 -.127	-.365 -.234 -.207 -.148 -.104 -.065 -.052 -.037	-.078 -.045 -.043 -.042 -.058 -.075 -.069 -.053	-.086 -.080 -.067 -.065 -.005 -.035 -.059 -.065	.217 .191 .164 .124 .067 .055 .009 .047	.335 .293 .259 .208 .148 .086 .069 .022	-.763 -.688 -.713 -.676 -.640 -.631 -.615 -.337	-.764 -.699 -.688 -.598 -.434 -.322 -.258 -.084	-.424 -.239 -.223 -.207 -.179 -.101 -.041 -.042	-.082 -.102 -.064 -.041 -.007 -.004 -.046 -.050	.140 .109 .110 .108 .088 .046 .110 .045	.309 .262 .247 .213 .183 .110 .093 .061	.422 .382 .354 .308 .299 .197 .174 .131	.100 .193 .248 .344 .446 .549 .646 .751 .692
$M = 1.200; q = 43^2 \text{ lb/sq ft}$														$M = 1.250; q = 46^2 \text{ lb/sq ft}$		
Upper surface	.071 .143 .243 .344 .446 .549 .646 .751 .800	.231 .162 .071 .000 .055 .115 .184 .237	.185 .120 .033 -.065 -.094 -.145 -.213 -.261	.082 .015 -.065 -.127 -.178 -.230 -.293 -.332	-.068 -.121 -.173 -.215 -.240 -.303 -.338 -.359	-.290 -.293 -.320 -.329 -.354 -.376 -.386 -.396	-.562 -.549 -.549 -.547 -.563 -.572 -.566 -.560	-.4701 -.698 -.690 -.681 -.684 -.688 -.687 -.679						.071 .143 .243 .344 .446 .549 .646 .751 .800		
Lower surface	.100 .193 .248 .344 .446 .541 .587 .692	-.580 -.497 -.501 -.480 -.461 -.468 -.463 -.414	-.588 -.526 -.526 -.505 -.475 -.455 -.463 -.212	-.395 -.207 -.111 -.132 -.135 -.123 -.102 -.002	-.014 -.055 -.049 -.068 -.060 -.022 -.004 -.081	.127 -.080 -.070 -.072 -.086 -.088 -.087 -.106	.307 -.264 -.262 -.243 -.217 -.178 -.166 -.137	.424 -.367 -.350 -.321 -.281 -.237 -.217 -.177						.100 .193 .248 .344 .446 .541 .587 .692		

TABLE IV.- PRESSURE COEFFICIENTS AT STAGNATION PRESSURE

OF 1.0 ATMOSPHERE FOR WING IN PRESENCE OF BODY

(a) 12-percent-semispan station

x/c	$\alpha = -4^\circ$	$\alpha = -2^\circ$	$\alpha = 0^\circ$	$\alpha = 2^\circ$	$\alpha = 4^\circ$	$\alpha = 8^\circ$	$\alpha = 12^\circ$	x/c
$M = 0.800; q = 616 \text{ lb/sq ft}$								
Upper surface	.000	.167	.376	.536	.544	.524		
	.022	.383	.284	.180	.025	-.152		
	.072	.221	.137	.034	-.061	-.153		
	.150	.092	.025	-.057	-.135	-.218		
	.250	.018	-.044	-.114	-.183	-.255		
	.350	-.031	-.089	-.153	-.215	-.282		
	.449	-.053	-.104	-.163	-.220	-.283		
	.549	-.090	-.138	-.189	-.243	-.300		
	.652	-.084	-.124	-.170	-.215	-.293		
	.752	-.072	-.103	-.141	-.174	-.209		
	.846	-.046	-.069	-.097	-.118	-.142		
	.924	-.032	-.046	-.062	-.073	-.084		
Lower surface	.018	-.490	-.203	-.005	.119	.254		
	.069	-.293	-.176	-.064	.028	.120		
	.145	-.227	-.146	-.060	.013	.088		
	.250	-.222	-.155	-.081	-.018	.050		
	.349	-.210	-.149	-.085	-.027	.032		
	.448	-.197	-.141	-.086	-.037	.019		
	.549	-.194	-.142	-.093	-.047	.001		
	.650							
	.750	-.110	-.079	-.051	-.016	.020		
	.848	-.075	-.050	-.028	-.006	.020		
	.899	-.054	-.033	-.014	.004	.027		
$M = 0.940; q = 731 \text{ lb/sq ft}$								
Upper surface	.000	.335	.469	.185	.586	.575		
	.022	.410	.306	.202	.086	-.043		
	.072	.245	.155	.071	-.008	-.082		
	.150	.108	.031	-.035	-.103	-.167		
	.250	.023	-.046	-.106	-.165	-.213		
	.350	-.039	-.107	-.166	-.225	-.275		
	.449	-.072	-.136	-.187	-.240	-.292		
	.549	-.137	-.210	-.262	-.311	-.357		
	.652	-.141	-.216	-.282	-.333	-.376		
	.752	-.125	-.194	-.283	-.346	-.392		
	.846	-.088	-.134	-.227	-.338	-.387		
	.924	-.059	-.078	-.096	-.237	-.343		
Lower surface	.018	-.382	-.120	-.037	.142	.268		
	.069	-.241	-.146	-.048	.034	.127		
	.145	-.218	-.140	-.061	.008	.088		
	.250	-.234	-.182	-.103	-.038	.039		
	.349	-.249	-.190	-.115	-.056	.015		
	.448	-.257	-.198	-.132	-.076	-.006		
	.549	-.300	-.240	-.170	-.102	-.035		
	.650							
	.750	-.293	-.182	-.090	-.054	-.015		
	.848	-.208	-.085	-.053	-.037	-.010		
	.899	-.105	-.046	-.029	-.021	-.005		
$M = 0.900; q = 700 \text{ lb/sq ft}$								
Upper surface	.000	.282	.438	.568	.571	.557		
	.022	.398	.298	.181	.063	-.082		
	.072	.235	.148	.052	-.030	-.117		
	.150	.100	.028	-.049	-.120	-.200		
	.250	.019	-.045	-.116	-.178	-.247		
	.350	-.039	-.100	-.170	-.230	-.300		
	.449	-.068	-.126	-.191	-.250	-.309		
	.549	-.118	-.178	-.248	-.319	-.379		
	.652	-.114	-.167	-.235	-.310	-.394		
	.752	-.097	-.142	-.193	-.245	-.388		
	.846	-.157	-.100	-.135	-.158	-.225		
	.924	-.049	-.066	-.084	-.091	-.103		
Lower surface	.018	-.440	-.151	.020	.194	.258		
	.069	-.272	-.163	-.059	.030	.121		
	.145	-.232	-.147	-.064	.009	.085		
	.250	-.248	-.176	-.095	-.031	.040		
	.349	-.250	-.179	-.107	-.044	.020		
	.448	-.247	-.180	-.115	-.058	.004		
	.549	-.274	-.196	-.132	-.075	-.021		
	.650							
	.750	-.154	-.107	-.069	-.033	.004		
	.848	-.097	-.068	-.044	-.019	.010		
	.899	-.065	-.044	-.026	-.005	.019		
$M = 0.980; q = 767 \text{ lb/sq ft}$								
Upper surface	.000	.389	.511	.612	.618	.601		
	.022	.434	.339	.237	.121	-.002		
	.072	.271	.190	.105	.030	-.039		
	.150	.135	.067	.000	-.064	-.127		
	.250	.047	-.015	-.074	-.128	-.182		
	.349	-.020	-.080	-.135	-.189	-.240		
	.448	-.054	-.110	-.159	-.212	-.261		
	.549	-.135	-.186	-.230	-.281	-.328		
	.652	-.150	-.207	-.250	-.300	-.346		
	.752	-.169	-.227	-.273	-.327	-.373		
	.846	-.170	-.231	-.277	-.329	-.375		
	.924	-.177	-.234	-.283	-.331	-.375		
Lower surface	.018	-.297	-.062	.074	.178	.291		
	.069	-.198	-.111	-.012	.065	.150		
	.145	-.176	-.107	-.030	.034	.107		
	.250	-.206	-.144	-.082	-.019	.049		
	.349	-.222	-.145	-.098	-.042	.023		
	.448	-.237	-.178	-.113	-.063	-.008		
	.549	-.279	-.222	-.160	-.116	-.051		
	.650							
	.750	-.285	-.229	-.173	-.124	-.048		
	.848	-.303	-.249	-.189	-.137	-.054		
	.899	-.301	-.242	-.184	-.126	-.050		

TABLE IV.-- PRESSURE COEFFICIENTS AT STAGNATION PRESSURE OF
 1.0 ATMOSPHERE FOR WING IN PRESENCE OF BODY - Continued

(a) 12-percent-semispan station - Concluded

x/c	$\alpha = -4^\circ$	$\alpha = -2^\circ$	$\alpha = 0^\circ$	$\alpha = 2^\circ$	$\alpha = 4^\circ$	$\alpha = 8^\circ$	$\alpha = 12^\circ$	
$M = 1.030; q = 796 \text{ lb/sq ft}$								
Upper surface								
.000	.450	.563	.655	.653	.640			
.022	.481	.380	.274	.151	.080	.019		
.072	.321	.295	.046	.011	.069			
.150	.187	.114	.024	.073	.119			
.250	.103	.035	.027	.086	.132	.181		
.350	.039	.052	.110	.156	.198			
.449	.005	.126	.179	.219	.260			
.549	.074	.145	.198	.241	.276			
.652	.091	.178	.224	.266	.305			
.752	.110	.168	.226	.268	.307			
.846	.118	.172	.226	.268	.307			
.924	.124	.178	.229	.268	.304			
Lower surface								
.018	-.239	-.004	.122	.224	.334			
.069	-.137	-.056	.035	.110	.196			
.145	-.118	-.056	.014	.080	.154			
.250	-.147	-.090	-.036	.025	.098			
.349	-.160	-.111	-.054	.008	.073			
.448	-.174	-.124	-.068	-.010	.047			
.549	-.212	-.166	-.114	-.054	.002			
.650								
.750	-.222	-.173	-.126	-.069	-.016			
.848	-.241	-.190	-.140	-.085	-.026			
.899	-.242	-.185	-.136	-.081	-.023			
$M = 1.200; q = 880 \text{ lb/sq ft}$								
Upper surface								
.000	.534	.610	.639	.616	.635	.690	.698	
.022	.414	.322	.225	.104	-.017	-.253	-.529	
.072	.292	.224	.151	.073	-.001	-.181	-.335	
.150	.173	.109	.060	.010	-.043	-.129	-.222	
.250	.134	.081	.027	-.036	-.085	-.166	-.228	
.350	.075	.022	-.025	-.070	-.121	-.208	-.262	
.449	.052	.010	-.036	-.088	-.133	-.210	-.267	
.549	-.006	-.051	-.094	-.141	-.183	-.254	-.307	
.652	-.017	-.067	-.112	-.155	-.194	-.261	-.317	
.752	-.057	-.092	-.126	-.166	-.205	-.274	-.340	
.846	-.072	-.112	-.149	-.187	-.221	-.292	-.350	
.924	-.070	-.109	-.145	-.182	-.221	-.291	-.353	
Lower surface								
.018	-.130	-.021	.108	.190	.300	.464	.632	
.049	-.103	-.054	.013	.081	.158	.314	.486	
.145	-.078	-.031	.038	.076	.134	.258	.431	
.250	-.084	-.050	.010	.055	.113	.236	.378	
.349	-.093	-.057	-.001	.043	.098	.218	.352	
.448	-.109	-.068	-.010	.034	.088	.201	.324	
.549	-.130	-.102	-.049	-.003	.051	.169	.281	
.650								
.750	-.146	-.106	-.057	-.016	.030	.124	.237	
.848	-.143	-.124	-.078	-.042	.003	.100	.228	
.899	-.150	-.116	-.077	-.046	-.006	.098	.235	

TABLE IV.- PRESSURE COEFFICIENTS AT STAGNATION PRESSURE OF
1.0 ATMOSPHERE FOR WING IN PRESENCE OF BODY - Continued

(b) 25-percent-semispan station

x/c	$\alpha = -4^\circ$	$\alpha = -2^\circ$	$\alpha = 0^\circ$	$\alpha = 2^\circ$	$\alpha = 4^\circ$	$\alpha = 8^\circ$	$\alpha = 12^\circ$	$\alpha = -4^\circ$	$\alpha = -2^\circ$	$\alpha = 0^\circ$	$\alpha = 2^\circ$	$\alpha = 4^\circ$	$\alpha = 8^\circ$	$\alpha = 12^\circ$	x/c
$M = 0.800; q = 616 \text{ lb/sq ft}$															
Upper surface															
.000	-.029	.065	.449	.822	.599			-.013	.173	.476	.801	.649			.000
.027	.295	.206	.056	.128	.368			.292	.199	.065	-.098	-.318			.027
.076	.152	.068	-.048	-.162	-.305			.149	.061	-.048	-.148	-.282			.076
.151	.061	-.014	-.108	-.211	-.317			.056	-.023	-.115	-.209	-.314			.151
.250	-.018	-.085	-.168	-.250	-.342			.030	-.106	-.190	-.261	-.350			.250
.350	-.059	-.119	-.192	-.263	-.343			.078	-.148	-.230	-.326	-.402			.350
.453	-.088	-.140	-.205	-.264	-.335			.114	-.177	-.253	-.327	-.429			.453
.551	-.100	-.143	-.196	-.247	-.302			.150	-.187	-.263	-.348	-.437			.551
.652	-.074	-.109	-.151	-.192	-.232			.097	-.143	-.198	-.268	-.426			.652
.750	-.065	-.092	-.123	-.151	-.180			.175	-.121	-.163	-.198	-.296			.750
.850	-.033	-.049	-.072	-.089	-.103			.052	-.071	-.093	-.107	-.115			.850
.925	.001	-.006	-.017	-.026	-.033			.004	-.015	-.024	-.029	-.032			.925
Lower surface															
.025	-.671	-.406	-.149	.031	.194			.692	-.424	-.157	.014	.168			.025
.074	-.511	-.270	-.108	.002	.107			.457	-.265	-.119	-.019	.090			.074
.151	-.358	-.201	-.088	-.003	.077			.388	-.225	-.110	-.022	.068			.151
.248	-.246	-.177	-.097	-.026	.043			.310	-.212	-.123	-.052	.025			.248
.347	-.216	-.159	-.092	-.034	.028			.283	-.208	-.129	-.062	.007			.347
.446	-.192	-.143	-.089	-.036	.017			.289	-.193	-.124	-.065	-.003			.446
.552	-.148	-.113	-.068	-.024	.022			.219	-.155	-.099	-.050	.000			.552
.650	-.107	-.077	-.040	-.006	.032			.150	-.107	-.149	-.022	.017			.650
.754	.004	.014	.035	.066	.096			.026	-.004	.022	.055	.084			.754
.850	-.010	.006	.023	.043	.063			.020	-.000	.018	.040	.060			.850
.900	.022	.034	.045	.061	.078			.019	-.033	.045	.060	.076			.900
$M = 0.940; q = 731 \text{ lb/sq ft}$															
Upper surface															
.000	.006	.188	.456	.754	.694			.099	.271	.478	.766	.759			.000
.027	.293	.197	.081	-.073	-.279			.311	.223	.111	-.035	-.223			.027
.076	.152	.058	-.035	-.133	-.242			.170	.088	-.005	-.102	-.213			.076
.151	.056	-.026	-.104	-.193	-.280			.075	-.005	-.090	-.163	-.246			.151
.250	-.036	-.113	-.179	-.251	-.334			.019	-.084	-.146	-.226	-.298			.250
.350	-.090	-.175	-.254	-.317	-.371			.083	-.163	-.220	-.280	-.333			.350
.453	-.131	-.217	-.279	-.346	-.405			.136	-.197	-.256	-.320	-.375			.453
.551	-.160	-.236	-.301	-.368	-.420			.171	-.229	-.281	-.339	-.392			.551
.652	-.118	-.199	-.300	-.370	-.425			.176	-.237	-.290	-.349	-.404			.652
.750	-.108	-.161	-.278	-.367	-.425			.193	-.250	-.301	-.360	-.409			.750
.850	-.060	-.082	-.100	-.279	-.398			.189	-.242	-.290	-.347	-.397			.850
.925	-.003	-.015	-.011	-.054	-.148			.178	-.224	-.259	-.301	-.355			.925
Lower surface															
.025	-.673	-.423	-.157	-.001	.162			.643	-.382	-.116	.022	.171			.025
.074	-.429	-.276	-.126	-.023	.089			.371	-.226	-.100	-.001	.101			.074
.151	-.360	-.241	-.121	-.047	.064			.312	-.209	-.116	-.023	.064			.151
.248	-.323	-.235	-.141	-.070	.016			.292	-.211	-.122	-.059	.018			.248
.347	-.307	-.226	-.156	-.089	-.008			.275	-.215	-.130	-.079	-.019			.347
.446	-.324	-.250	-.169	-.096	-.023			.298	-.234	-.164	-.117	-.043			.446
.552	-.314	-.254	-.139	-.081	-.019			.305	-.250	-.186	-.132	-.056			.552
.650	-.304	-.182	-.082	-.048	-.003			.304	-.245	-.187	-.128	-.045			.650
.754	-.138	-.019	.011	.035	.063			.244	-.186	-.127	-.065	.019			.754
.850	-.013	.003	.020	.029	.039			.274	-.211	-.144	-.076	-.010			.850
.900	.033	.034	.049	.052	.053			.230	-.171	-.100	-.035	-.005			.900

TABLE IV.-- PRESSURE COEFFICIENTS AT STAGNATION PRESSURE OF
 1.0 ATMOSPHERE FOR WING IN PRESENCE OF BODY - Continued

(b) 25-percent-semispan station - Concluded

TABLE IV.- PRESSURE COEFFICIENTS AT STAGNATION PRESSURE OF
 1.0 ATMOSPHERE FOR WING IN PRESENCE OF BODY - Continued

(c) 40-percent-semispan station

x/c	$\alpha = -4^\circ$	$\alpha = -2^\circ$	$\alpha = 0^\circ$	$\alpha = 2^\circ$	$\alpha = 4^\circ$	$\alpha = 8^\circ$	$\alpha = 12^\circ$	x/c
$M = 0.800; q = 616 \text{ lb/sq ft}$								
Upper surface	.000	.278	.419	.466	.506	.168		
	.023	.320	.229	.081	-.154	.489		
	.077	.148	.052	-.071	-.232	-.425		
	.149	.063	-.013	-.124	-.239	-.392		
	.249	-.004	-.073	-.165	-.261	-.375		
	.353	-.040	-.100	-.178	-.258	-.352		
	.449	-.068	-.123	-.192	-.257	-.332		
	.552	-.070	-.114	-.168	-.220	-.276		
	.650	-.061	-.095	-.137	-.177	-.217		
	.755	-.054	-.078	-.110	-.138	-.166		
	.852	-.028	-.044	-.064	-.081	-.093		
	.929	.008	-.001	-.011	-.018	-.023		
Lower surface	.023	-.652	-.472	-.215	.024	.214		
	.073	-.626	-.396	-.111	.026	.134		
	.149	-.611	-.319	-.087	.015	.108		
	.247	-.461	-.199	-.077	-.001	.069		
	.353	-.280	-.148	-.075	-.011	.051		
	.449	-.163	-.079	-.058	-.005	.047		
	.550	-.101	-.037	-.041	.005	.048		
	.650	-.047	-.036	-.009	.026	.061		
	.750							
	.850	.023	.026	.042	.059	.079		
	.900	.045	.047	.056	.071	.084		
$M = 0.940; q = 731 \text{ lb/sq ft}$								
Upper surface	.000	.333	.427	.439	.435	.456		
	.023	.295	.200	.082	-.104	-.375		
	.077	.119	.017	-.088	-.227	-.401		
	.149	.030	-.062	-.155	-.267	-.401		
	.249	-.047	-.132	-.224	-.312	-.412		
	.353	-.090	-.195	-.280	-.341	-.424		
	.449	-.133	-.222	-.321	-.399	-.464		
	.552	-.116	-.188	-.310	-.404	-.480		
	.650	-.101	-.153	-.243	-.385	-.455		
	.755	-.080	-.113	-.128	-.374	-.464		
	.852	-.040	-.064	-.067	-.088	-.240		
	.929	.009	-.007	-.005	-.004	-.042		
Lower surface	.023	-.730	-.516	-.278	-.052	.149		
	.073	-.646	-.449	-.179	-.035	.085		
	.149	-.650	-.374	-.158	-.048	.069		
	.247	-.602	-.311	-.153	-.061	.026		
	.353	-.441	-.295	-.135	-.071	.007		
	.449	-.352	-.260	-.114	-.057	.005		
	.550	-.308	-.152	-.075	-.036	.011		
	.650	-.143	-.062	-.027	-.000	.030		
	.750							
	.850	.040	.027	.047	.058	.062		
	.900	.067	.050	.066	.073	.071		
$M = 0.900; q = 700 \text{ lb/sq ft}$								
Upper surface	.000	.309	.429	.446	.456	.341		
	.023	.305	.212	.076	-.131	-.435		
	.077	.148	.052	.032	-.091	-.239		
	.149	.063	-.013	-.071	-.155	-.268		
	.249	-.004	-.073	-.165	-.204	-.427		
	.353	-.027	-.106	-.235	-.320	-.442		
	.449	-.065	-.138	-.235	-.352	-.447		
	.552	-.097	-.166	-.259	-.357	-.500		
	.650	-.093	-.148	-.215	-.274	-.484		
	.750	-.080	-.124	-.177	-.222	-.319		
	.850	-.069	-.100	-.136	-.163	-.165		
	.900	-.039	-.057	-.078	-.091	-.090		
	.929	.002	-.005	-.016	-.018	-.019		
Lower surface	.023	-.702	-.483	-.245	-.014	.172		
	.073	-.624	-.428	-.145	-.005	.104		
	.149	-.605	-.345	-.122	-.017	.085		
	.247	-.582	-.260	-.110	-.030	.046		
	.353	-.405	-.212	-.107	-.038	.028		
	.449	-.249	-.160	-.085	-.029	.027		
	.550	-.151	-.113	-.060	-.014	.032		
	.650	-.071	-.056	-.020	-.014	.050		
	.750							
	.850	.018	.024	.043	.060	.080		
	.900	.046	.047	.063	.072	.088		
$M = 0.980; q = 767 \text{ lb/sq ft}$								
Upper surface	.000	.368	.442	.458	.421	.490		
	.023	.301	.218	.108	-.060	-.309		
	.077	.123	.033	-.066	-.195	-.364		
	.149	.036	-.041	-.131	-.235	-.353		
	.247	-.045	-.121	-.201	-.285	-.384		
	.353	-.118	-.194	-.241	-.318	-.392		
	.449	-.163	-.239	-.298	-.367	-.435		
	.552	-.184	-.246	-.313	-.388	-.457		
	.650	-.169	-.240	-.304	-.372	-.436		
	.755	-.201	-.268	-.325	-.389	-.449		
	.852	-.212	-.266	-.326	-.391	-.449		
	.929	-.128	-.140	-.159	-.211	-.301		
Lower surface	.023	-.684	-.544	-.287	-.050	.134		
	.073	-.617	-.435	-.165	-.031	.076		
	.149	-.622	-.361	-.148	-.052	.047		
	.247	-.556	-.273	-.152	-.079	.004		
	.353	-.398	-.279	-.182	-.119	-.030		
	.449	-.332	-.275	-.198	-.133	-.039		
	.550	-.315	-.272	-.194	-.131	-.037		
	.650	-.290	-.251	-.175	-.110	-.021		
	.750							
	.850	-.239	-.162	-.073	-.006	-.009		
	.900	-.137	-.072	-.007	-.010	-.006		

TABLE IV.- PRESSURE COEFFICIENTS AT STAGNATION PRESSURE OF
1.0 ATMOSPHERE FOR WING IN PRESENCE OF BODY. Continued

(d) 60-percent-semispan station

x/c	$\alpha = -4^\circ$	$\alpha = -2^\circ$	$\alpha = 0^\circ$	$\alpha = 2^\circ$	$\alpha = 4^\circ$	$\alpha = 8^\circ$	$\alpha = 12^\circ$	
$M = 0.800; q = 616 \text{ lb/sq ft}$								
Upper surface								
.000	.273	.440	.512	.418	.143			
.023	.314	.237	.031	.333	.475			
.076	.187	.099	.053	.251	.612			
.150	.099	.022	.107	.255	.469			
.250	.033	.033	.135	.248	.401			
.349	.-012	.-072	.158	.251	.384			
.450	.-040	.-090	.163	.235	.321			
.550	.-059	.-099	.160	.219	.281			
.650								
.750	.-055	.-077	.111	.140	.168			
.850	.-034	.-047	.067	.085	.104			
.900	.-014	.-022	.036	.050	.065			
.925								
Lower surface								
.038	.-529	.-488	.124	.082	.228			
.091	.-493	.-414	.055	.073	.187			
.147	.-458	.-328	.076	.033	.129			
.252	.-327	.-069	.050	.026	.090			
.348	.-283	.-118	.034	.033	.092			
.447	.-192	.-071	.011	.042	.092			
.549	.-132	.-026	.015	.058	.097			
.655	.-080	.-005	.038	.070	.100			
.798	.-010	.-050	.072	.092	.109			
.875	.-011	.-061	.078	.091	.103			
$M = 0.940; q = 731 \text{ lb/sq ft}$								
Upper surface								
.000	.274	.431	.502	.478	.205			
.023	.293	.189	.016	.298	.946			
.076	.158	.050	.087	.294	.502			
.150	.067	.032	.167	.307	.481			
.250	.002	.-068	.212	.346	.487			
.349	.-042	.-121	.271	.382	.498			
.450	.-067	.-131	.252	.402	.513			
.550	.-083	.-142	.194	.332	.529			
.650								
.750	.-069	.-101	.127	.134	.422			
.850	.-040	.-060	.071	.048	.103			
.900	.-016	.-030	.037	.018	.042			
.925								
Lower surface								
.038	.-936	.-640	.214	.011	.154			
.091	.-872	.-556	.125	.000	.122			
.147	.-878	.-466	.142	.034	.067			
.252	.-664	.-192	.120	.033	.041			
.348	.-446	.-163	.068	.009	.049			
.447	.-094	.-068	.030	.015	.060			
.549	.-014	.-037	.006	.042	.073			
.655	.027	.002	.035	.063	.084			
.798	.062	.057	.078	.096	.105			
.875	.074	.070	.086	.101	.105			
$M = 0.900; q = 700 \text{ lb/sq ft}$								
Upper surface								
.000	.252	.448	.510	.435	.059			
.023	.317	.219	.018	.379	.145			
.076	.183	.081	.073	.284	.616			
.150	.092	.001	.-134	.306	.526			
.250	.023	.-057	.170	.302	.505			
.349	.-024	.-096	.194	.317	.520			
.450	.-053	.-116	.198	.278	.483			
.550	.-073	.-126	.193	.260	.292			
.650								
.750	.-066	.-094	.131	.159	.168			
.850	.-042	.-055	.078	.091	.096			
.900	.-020	.-027	.042	.052	.060			
.925								
Lower surface								
.038	.-822	.-550	.158	.047	.191			
.091	.-819	.-083	.043	.158	.091			
.147	.-803	.-390	.-103	.006	.059			
.252	.-610	.-133	.-090	.005	.070			
.348	.-222	.-146	.-052	.015	.076			
.447	.-112	.-083	.-017	.032	.081			
.549	.-064	.-036	.010	.053	.090			
.655	.-030	.001	.037	.068	.067			
.798	.024	.055	.076	.094	.112			
.875	.041	.066	.084	.096	.107			
$M = 0.960; q = 767 \text{ lb/sq ft}$								
Upper surface								
.000	.312	.487	.493	.443	.311			
.023	.262	.174	.025	.219	.760			
.076	.125	.031	.-079	.256	.420			
.150	.029	.-054	.160	.289	.426			
.250	.-051	.-125	.218	.329	.437			
.348	.-106	.-192	.268	.370	.447			
.447	.-139	.-217	.295	.386	.441			
.549	.-191	.-260	.333	.413	.503			
.650								
.750	.-253	.-329	.403	.486	.545			
.850	.-196	.-213	.329	.444	.528			
.900	.-039	.-059	.181	.272	.436			
.925								
Lower surface								
.038	.-935	.-616	.392	.092	.098			
.091	.-748	.-510	.196	.052	.080			
.147	.-670	.-417	.229	.113	.015			
.252	.-562	.-283	.235	.149	.011			
.348	.-511	.-335	.213	.130	.011			
.447	.-399	.-304	.202	.099	.004			
.549	.-348	.-275	.188	.017	.009			
.655	.-287	.-209	.053	.011	.012			
.798	.-070	.-011	.065	.049	.026			
.875	.019	.062	.085	.057	.020			

TABLE IV.- PRESSURE COEFFICIENTS AT STAGNATION PRESSURE OF
1.0 ATMOSPHERE FOR WING IN PRESENCE OF BODY. Continued

(d) 60-percent-semi-span station - Concluded

TABLE IV.- PRESSURE COEFFICIENTS AT STAGNATION PRESSURE OF
1.0 ATMOSPHERE FOR WING IN PRESENCE OF BODY - Continued

(e) 50-percent-semispan station

x/c	$\alpha = -4^\circ$	$\alpha = -2^\circ$	$\alpha = 0^\circ$	$\alpha = 2^\circ$	$\alpha = 4^\circ$	$\alpha = 8^\circ$	$\alpha = 12^\circ$	$\alpha = -4^\circ$	$\alpha = -2^\circ$	$\alpha = 0^\circ$	$\alpha = 2^\circ$	$\alpha = 4^\circ$	$\alpha = 8^\circ$	$\alpha = 12^\circ$	x/c
$M = 0.800; q = 616 \text{ lb/sq ft}$														$M = 0.900; q = 700 \text{ lb/sq ft}$	
Upper surface	.025	.331	.251	.040	-.407	-.899		.334	.245	.031	-.435	-.1276			.025
	.073	.196	.115	-.052	-.308	-.767		.201	.105	-.070	-.346	-.1165			.073
	.146	.102	.027	-.108	-.282	-.636		.104	.016	-.129	-.327	-.4878			.146
	.247	.051	-.008	-.113	-.248	-.481		.051	-.023	-.135	-.293	-.390			.247
	.352	.005	-.045	-.136	-.243	-.390		.002	-.062	-.165	-.291	-.337			.352
	.453	-.032	-.071	-.148	-.234	-.339		.038	-.092	-.179	-.283	-.356			.453
	.550	-.064	-.095	-.159	-.228	-.296		.074	-.118	-.193	-.277	-.350			.550
	.603	-.068	-.091	-.148	-.207	-.266		.078	-.113	-.179	-.251	-.317			.603
	.651	-.076	-.093	-.142	-.194	-.238		.088	-.116	-.172	-.228	-.274			.651
	.750	-.085	-.085	-.119	-.153	-.184		.098	-.105	-.140	-.170	-.189			.750
	.851	-.069	-.040	-.060	-.078	-.102		.090	-.051	-.069	-.080	-.095			.851
	.900														.900
Lower surface	.061	-.339	-.391	-.076	.105	.229		.372	-.374	-.095	.094	.216			.061
	.147	-.304	-.361	-.041	.092	.191		.342	-.334	-.049	.084	.175			.147
	.248	-.292	-.259	-.022	.072	.147		.329	-.309	-.034	.066	.141			.248
	.352	-.265	-.158	-.014	.057	.120		.304	-.236	-.018	.053	.115			.352
	.453	-.259	-.095	-.005	.050	.099		.295	-.158	-.012	.048	.098			.453
	.549														.549
	.612	-.212	-.030	.036	.071	.105		.260	-.052	.042	.073	.107			.612
	.706	-.207	-.020	.060	.089	.111		.258	-.001	.064	.092	.116			.706
	.791	-.184	-.041	.079	.097	.113		.237	-.029	.082	.103	.118			.791
$M = 0.940; q = 731 \text{ lb/sq ft}$														$M = 0.980; q = 767 \text{ lb/sq ft}$	
Upper surface	.025	.337	.236	.025	-.440	-.1113		.263	.171	.033	-.237	-.4840			.025
	.073	.206	.095	-.076	-.432	-.989		.120	.025	-.107	-.309	-.731			.073
	.146	.110	.006	-.135	-.425	-.768		.029	-.058	-.179	-.323	-.569			.146
	.247	.055	-.033	-.146	-.405	-.539		.053	-.131	-.235	-.356	-.487			.247
	.352	.003	-.075	-.174	-.430	-.567		.111	-.189	-.279	-.390	-.511			.352
	.453	-.034	-.103	-.192	-.378	-.596		.166	-.241	-.325	-.425	-.530			.453
	.550	-.072	-.131	-.206	-.225	-.431		.224	-.290	-.369	-.466	-.569			.550
	.603	-.075	-.126	-.193	-.184	-.434		.239	-.313	-.388	-.479	-.586			.603
	.651	-.084	-.129	-.183	-.187	-.536		.203	-.341	-.410	-.492	-.600			.651
	.750	-.094	-.116	-.149	-.175	-.410		.076	-.144	-.388	-.525	-.634			.750
	.851	-.085	-.060	-.069	-.075	-.425		.055	.019	-.026	-.274	-.612			.851
	.900														.900
Lower surface	.061	-.403	-.336	-.102	.070	.178		.675	-.712	-.416	-.071	.090			.061
	.147	-.380	-.300	-.058	.047	.137		.619	-.599	-.271	-.033	.061			.147
	.248	-.345	-.271	-.037	.056	.118		.594	-.483	-.227	-.022	.035			.248
	.352	-.349	-.237	-.024	.045	.097		.552	-.379	-.111	-.022	.013			.352
	.453	-.340	-.185	-.010	.044	.082		.536	-.276	-.020	-.015	-.002			.453
	.549														.549
	.612	-.323	-.100	.040	.072	.101		.445	-.107	.055	.029	.022			.612
	.706	-.322	-.042	.068	.094	.111		.398	-.024	.084	.057	.034			.706
	.791	-.304	-.009	.086	.105	.119		.337	-.021	.105	.073	.035			.791

TABLE IV.- PRESSURE COEFFICIENTS AT STAGNATION PRESSURE OF
1.0 ATMOSPHERE FOR WING IN PRESENCE OF BODY - Continued

(e) 80-percent-semispan station - Concluded

x/c	$\alpha = -4^\circ$	$\alpha = -2^\circ$	$\alpha = 0^\circ$	$\alpha = 2^\circ$	$\alpha = 4^\circ$	$\alpha = 8^\circ$	$\alpha = 12^\circ$	$\alpha = -4^\circ$	$\alpha = -2^\circ$	$\alpha = 0^\circ$	$\alpha = 2^\circ$	$\alpha = 4^\circ$	$\alpha = 8^\circ$	$\alpha = 12^\circ$	x/c
$M = 1.030; q = 796 \text{ lb/sq ft}$															
$M = 1.125; q = 847 \text{ lb/sq ft}$															
$M = 1.200; q = 880 \text{ lb/sq ft}$															
Upper surface	.025	.290	.217	.085	-.172	-.475		.309	.239	.129	-.083	-.456			.025
	.073	.154	.077	-.049	-.241	-.582		.179	.105	-.001	-.164	-.446			.073
	.146	.066	-.006	-.114	-.255	-.514		.096	.026	-.061	-.189	-.441			.146
	.247	.005	-.079	-.177	-.292	-.407		.028	-.040	-.115	-.214	-.330			.247
	.352	-.069	-.132	-.225	-.329	-.428		.027	-.093	-.165	-.246	-.342			.352
	.453	-.126	-.185	-.264	-.365	-.452		.073	-.132	-.203	-.277	-.363			.453
	.550	-.179	-.228	-.302	-.400	-.485		.116	-.170	-.248	-.316	-.389			.550
	.603	-.203	-.249	-.322	-.418	-.495		.139	-.188	-.265	-.330	-.404			.603
	.651	-.227	-.274	-.346	-.438	-.513		.160	-.210	-.283	-.346	-.420			.651
	.750	-.258	-.315	-.388	-.449	-.549		.196	-.250	-.320	-.384	-.452			.750
	.851	-.295	-.320	-.389	-.467	-.554		.198	-.250	-.321	-.392	-.457			.851
	.900														.900
Lower surface	.061	-.676	-.675	-.375	-.066	.101		.703	-.746	-.358	-.032	.113			.061
	.147	-.621	-.554	-.233	-.071	.078		.612	-.672	-.173	-.047	.090			.147
	.248	-.590	-.439	-.200	-.071	.053		.570	-.304	-.157	-.034	.059			.248
	.352	-.540	-.385	-.193	-.072	.031		.493	-.236	-.153	-.050	.039			.352
	.453	-.503	-.339	-.178	-.054	.016		.388	-.229	-.147	-.051	.040			.453
	.549														.549
	.612	-.415	-.251	-.069	-.010	.035		.280	-.180	-.080	.001	.076			.612
	.706	-.370	-.174	-.012	.022	.045		.228	-.110	-.024	.052	.105			.706
	.791	-.319	-.126	.012	.030	.045		.178	-.054	-.017	.075	.112			.791
Upper surface	.025	.314	.256	.172	-.020	-.293	-.659	-.816							.025
	.073	.190	.132	.045	-.109	-.341	-.627	-.781							.073
	.146	.119	.060	-.013	-.155	-.363	-.622	-.767							.146
	.247	.056	.002	-.064	-.168	-.329	-.601	-.746							.247
	.352	.003	-.048	-.107	-.193	-.283	-.593	-.735							.352
	.453	-.045	-.090	-.146	-.223	-.307	-.586	-.720							.453
	.550	-.087	-.136	-.185	-.259	-.339	-.610	-.743							.550
	.603	-.101	-.151	-.201	-.275	-.352	-.609	-.739							.603
	.651	-.126	-.171	-.221	-.291	-.362	-.606	-.732							.651
	.750	-.166	-.211	-.263	-.321	-.385	-.613	-.735							.750
	.851	-.174	-.219	-.272	-.333	-.392	-.614	-.734							.851
	.900														.900
Lower surface	.061	-.636	-.614	-.342	-.010	.122	.285	.401							.061
	.147	-.547	-.569	-.146	-.035	.093	.239	.354							.147
	.248	-.543	-.495	-.109	-.024	.072	.203	.319							.248
	.352	-.511	-.231	-.115	-.043	.043	.175	.281							.352
	.453	-.510	-.185	-.125	-.049	.029	.159	.251							.453
	.549														.549
	.612	-.264	-.168	-.089	-.027	.056	.174	.236							.612
	.706	-.201	-.129	-.048	-.031	.104	.189	.229							.706
	.791	-.142	-.072	-.008	-.076	.134	.187	.217							.791

TABLE IV.- PRESSURE COEFFICIENTS AT STAGNATION PRESSURE OF
 1.0 ATMOSPHERE FOR WING IN PRESENCE OF BODY - Continued

(f) 95-percent-semispans stations

x/c	$\alpha = -4^\circ$	$\alpha = -2^\circ$	$\alpha = 0^\circ$	$\alpha = 2^\circ$	$\alpha = 4^\circ$	$\alpha = 8^\circ$	$\alpha = 12^\circ$	x/c
$M = 0.800; q = 616 \text{ lb/sq ft}$								
Upper surface	.071 .143 .243 .344 .446 .549 .646 .751 .800	.207 .145 .060 .024 .072 .090 .097 .127	.148 .087 .011 .060 .098 .120 .093 .099	-.020 -.051 -.094 -.144 -.156 -.141 -.120 -.116	-.291 -.227 -.238 -.241 -.221 -.187 -.156 -.142	-.759 -.680 -.528 -.409 -.327 -.263 -.211 -.178		
Lower surface	.100 .193 .248 .344 .446 .541 .587 .692	-.257 -.226 -.222 -.048 -.185 -.177 -.168 -.161	-.483 -.290 -.141 -.039 -.023 -.003 -.016 -.041	-.112 -.025 -.077 -.001 -.012 -.030 -.048 -.065	.067 .082 .077 .057 .044 .048 .052 .067	.174 .150 .097 .066 .066 .054 .056 .063		
$M = 0.900; q = 700 \text{ lb/sq ft}$								
Upper surface	.211 .154 .057 .038 .101 .128 .137 .170	-.149 -.081 -.001 -.083 -.134 -.132 -.114 -.116	-.026 -.070 -.114 -.183 -.195 -.167 -.135 -.125	-.343 -.285 -.299 -.307 -.239 -.197 -.162 -.150	-.1034 -.879 -.691 -.532 -.387 -.291 -.226 -.187			
Lower surface	-.240 -.219 -.213 -.196 -.181 -.172 -.163 -.155	-.547 -.330 -.149 -.047 -.019 .007 .019 .042	-.115 -.029 -.016 -.005 .009 .031 .041 .069	-.073 .080 .075 .053 .036 .042 .048 .068	.183 .156 .137 .097 .060 .049 .051 .063			
$M = 0.940; q = 731 \text{ lb/sq ft}$								
Upper surface	.071 .143 .243 .344 .446 .549 .646 .751 .800	.222 .158 .067 -.031 -.031 -.107 -.144 -.155 -.195	.148 .087 -.003 -.093 -.093 -.170 -.160 -.126 -.125	-.021 -.076 -.113 -.205 -.273 -.250 -.168 -.126 -.119	-.570 -.394 -.315 -.273 -.273 -.276 -.203 -.153 -.144	-.176 -.060 -.011 -.962 -.517 -.517 -.283 -.104 -.029		
Lower surface	.100 .193 .248 .344 .446 .541 .587 .692	-.227 -.208 -.204 -.190 -.179 -.172 -.165 -.163	-.574 -.295 -.137 -.060 -.021 -.008 -.018 -.039	-.117 -.038 -.022 -.010 -.005 -.030 -.042 -.074	.076 .084 .080 .053 .032 .036 .045 .068	.172 .143 .125 .084 .036 .018 .021 .046		
$M = 0.980; q = 767 \text{ lb/sq ft}$								
Upper surface	.159 .108 .055 .030 .112 .171 .200 .218	-.056 -.030 -.100 -.163 -.139 -.062 -.057 -.068	-.045 -.138 -.201 -.283 -.351 -.365 -.060 -.019	-.321 -.375 -.389 -.444 -.493 -.532 -.534 -.427	-.835 -.766 -.668 -.545 -.591 -.624 -.614 -.636			
Lower surface	-.313 -.286 -.276 -.256 -.237 -.224 -.214 -.204	-.582 -.484 -.381 -.123 -.056 -.011 -.013 -.044	-.182 -.050 -.032 -.012 -.011 -.034 -.061 -.100	-.022 -.004 -.006 -.004 -.042 -.021 -.009 -.024	.052 .048 .096 .010 .042 .086 .089 .083			

TABLE IV.- PRESSURE COEFFICIENTS AT STAGNATION PRESSURE OF
1.0 ATMOSPHERE FOR WING IN PRESENCE OF BODY - Concluded

(f) 95-percent-semispan station - Concluded

x/c	$\alpha = -4^\circ$	$\alpha = -2^\circ$	$\alpha = 0^\circ$	$\alpha = 2^\circ$	$\alpha = 4^\circ$	$\alpha = 8^\circ$	$\alpha = 12^\circ$	$\alpha = -4^\circ$	$\alpha = -2^\circ$	$\alpha = 0^\circ$	$\alpha = 2^\circ$	$\alpha = 4^\circ$	$\alpha = 8^\circ$	$\alpha = 12^\circ$	x/c
$M = 1.030; q = 796 \text{ lb/sq ft}$															
$M = 1.125; q = 847 \text{ lb/sq ft}$															
$M = 1.200; q = 860 \text{ lb/sq ft}$															
Upper surface	.071	.157	.111	.002	-.210	-.459		.197	.146	.054	-.092	-.385			.071
	.143	.088	.035	-.084	-.271	-.589		.129	.069	-.025	-.153	-.332			.143
	.243	.006	-.051	-.154	-.309	-.444		.046	-.006	-.089	-.195	-.332			.243
	.344	-.095	-.146	-.238	-.365	-.445		-.039	-.090	-.168	-.259	-.369			.344
	.446	-.161	-.212	-.288	-.406	-.511		-.100	-.142	-.217	-.303	-.401			.446
	.549	-.248	-.301	-.375	-.463	-.542		-.170	-.210	-.282	-.358	-.432			.549
	.646	-.323	-.378	-.435	-.481	-.539		-.249	-.284	-.345	-.398	-.439			.646
	.751	-.370	-.427	-.453	-.490	-.564		-.299	-.324	-.382	-.415	-.452			.751
	.800														.800
	.100	-.730	-.904	-.477	-.132	.035		.788	-.772	-.479	-.137	.046			.100
	.193	-.685	-.780	-.310	-.080	.040		.701	-.703	-.228	-.097	.068			.193
	.248	-.665	-.572	-.257	-.079	.032		.705	-.682	-.224	-.101	.055			.248
	.344	-.638	-.426	-.174	-.058	.025		.677	-.638	-.211	-.088	.070			.344
	.446	-.469	-.303	-.107	-.057	-.015		.651	-.427	-.196	-.044	.063			.446
	.541	-.407	-.143	-.038	-.065	-.065		.636	-.299	-.131	-.006	.028			.541
	.587	-.394	-.090	-.024	-.057	-.071		.494	-.220	-.072	-.030	.024			.587
	.692	-.387	-.037	-.005	-.039	-.068		.277	-.075	-.027	-.063	-.034			.692
Lower surface	.071	.209	.163	.097	-.042	-.280	-.612	-.768							.071
	.143	.142	.093	.028	-.108	-.278	-.580	-.750							.143
	.243	.058	.020	-.033	-.139	-.290	-.572	-.730							.243
	.344	-.019	-.059	-.112	-.201	-.319	-.576	-.723							.344
	.446	-.064	-.103	-.156	-.238	-.333	-.585	-.724							.446
	.549	-.125	-.160	-.213	-.286	-.356	-.598	-.728							.549
	.646	-.195	-.228	-.277	-.328	-.375	-.591	-.720							.646
	.751	-.242	-.278	-.318	-.350	-.389	-.589	-.713							.751
	.800														.800
	.100	-.626	-.615	-.430	-.104	.044	.215	.313							.100
	.193	-.545	-.561	-.186	-.070	.057	.206	.285							.193
	.248	-.550	-.546	-.137	-.072	.046	.185	.270							.248
	.344	-.524	-.523	-.147	-.084	.040	.185	.255							.344
	.446	-.507	-.503	-.152	-.088	.054	.170	.226							.446
	.541	-.505	-.377	-.141	-.064	.065	.134	.184							.541
	.587	-.500	-.276	-.116	-.040	.068	.121	.170							.587
	.692	-.437	-.132	-.025	-.057	.094	.101	.132							.692

TABLE V.-- PRESSURE COEFFICIENTS AT STAGNATION PRESSURE
OF 0.5 ATMOSPHERE FOR BODY IN PRESENCE OF WING

(a) Station A

TABLE V.- PRESSURE COEFFICIENTS AT STAGNATION PRESSURE OF
0.5 ATMOSPHERE FOR BODY IN PRESENCE OF WING - Continued

(a) Station A - Concluded

x/l	$\alpha = -4^\circ$	$\alpha = -2^\circ$	$\alpha = 0^\circ$	$\alpha = 2^\circ$	$\alpha = 4^\circ$	$\alpha = 8^\circ$	$\alpha = 12^\circ$	$\alpha = -4^\circ$	$\alpha = -2^\circ$	$\alpha = 0^\circ$	$\alpha = 2^\circ$	$\alpha = 4^\circ$	$\alpha = 8^\circ$	$\alpha = 12^\circ$	x/l	
$M = 1.030; q = 598 \text{ lb/sq ft}$																
$M = 1.125; q = 423 \text{ lb/sq ft}$																
*055	.079	.059	.051	.038	.020	.016	.027	*069	.065	.037	.024	.009	.006	-.009	.055	
*166	.061	.041	.030	.020	.009	.000	.013	.059	.042	.025	.010	.003	-.019	-.023	.166	
*277	.009	-.002	-.011	-.021	-.033	.024	.056	.015	.008	-.004	-.015	-.022	-.024	-.033	.277	
*367	.240	.210	.191	.180	.165	.157	.167	.367	.048	.041	.038	.031	.031	.045	.118	.367
*387	.196	.163	.136	.119	.097	.068	.028	.387	.156	.122	.079	.076	.062	.044	.056	.387
*415	.149	.109	.072	.048	.016	-.035	-.104	.415	.169	.131	.093	.060	.032	-.020	-.051	.415
*443	.113	.074	.034	.001	-.039	-.103	-.167	.443	.145	.097	.057	.020	-.012	-.068	-.108	.443
*498	.044	.000	-.041	-.080	-.126	-.195	-.278	.498	.080	.031	-.015	-.057	-.095	-.148	-.204	.498
*553	-.031	-.078	-.118	-.155	-.198	-.264	-.338	.553	.019	-.024	-.073	-.111	-.149	-.203	-.257	.553
*581	-.072	-.119	-.157	-.196	-.240	-.308	-.385	.581	-.011	-.063	-.110	-.146	-.179	-.240	-.298	.581
*609	-.084	-.134	-.171	-.210	-.255	-.317	-.383	.609	-.023	-.069	-.116	-.155	-.189	-.249	-.298	.609
*636	-.118	-.165	-.206	-.245	-.291	-.352	-.424	.636	-.056	-.096	-.145	-.183	-.216	-.283	-.338	.636
*664	-.140	-.188	-.237	-.273	-.317	-.386	-.457	.664	-.085	-.129	-.173	-.209	-.249	-.312	-.367	.664
*692	-.138	-.189	-.233	-.272	-.317	-.394	-.476	.692	-.088	-.128	-.174	-.213	-.253	-.324	-.386	.692
*719	-.127	-.156	-.183	-.205	-.233	-.320	-.450	.719	-.090	-.125	-.156	-.191	-.222	-.293	-.382	.719
*774	-.077	-.074	-.083	-.075	-.082	-.102	-.075	.774	-.048	-.060	-.064	-.064	-.062	-.061	-.028	.774
*830	-.084	-.082	-.076	-.071	-.073	-.083	-.061	.830	-.054	-.052	-.049	-.045	-.037	-.036	.053	.830
*871	-.117	-.110	-.097	-.083	-.078	-.081	-.103	.871	-.093	-.080	-.064	-.048	-.038	-.031	-.029	.871
*954															.954	
$M = 1.000; q = 430 \text{ lb/sq ft}$																
*055	.101	.072	.005	.038	.024	.032	.025	*055								
*166	.070	.056	.044	.030	.014	.001	-.001	.166								
*277	.035	.024	.013	.008	.003	-.006	-.013	.277								
*367	.063	.052	.038	.033	.030	.025	.042	.367								
*387	.045	.041	.042	.041	.038	.038	.030	.387								
*415	.172	.145	.108	.078	.046	-.001	-.041	.415								
*443	.163	.127	.087	.053	.017	-.045	-.092	.443								
*498	.114	.071	.023	.016	.058	-.116	-.171	.498								
*553	.043	.009	-.036	-.071	-.108	-.169	-.215	.553								
*581	.009	-.032	-.076	-.110	-.150	-.208	-.264	.581								
*609	.003	-.039	-.083	-.126	-.160	-.216	-.262	.609								
*636	-.034	-.067	-.116	-.141	-.180	-.239	-.284	.636								
*664	-.050	-.086	-.137	-.175	-.213	-.265	-.311	.664								
*692	-.064	-.101	-.146	-.175	-.210	-.271	-.335	.692								
*719	-.082	-.114	-.153	-.180	-.215	-.279	-.349	.719								
*774	-.047	-.053	-.059	-.061	-.068	-.061	-.066	.774								
*830	-.051	-.051	-.047	-.041	-.041	-.028	-.017	.830								
*871	-.092	-.080	-.063	-.042	-.040	-.020	-.023	.871								
*954								.954								

TABLE V. - PRESSURE COEFFICIENTS AT STAGNATION PRESSURE OF
0.5 ATMOSPHERE FOR BODY IN PRESENCE OF WING - Continued

(c) Station C

x/l	$\alpha = -4^\circ$	$\alpha = -2^\circ$	$\alpha = 0^\circ$	$\alpha = 2^\circ$	$\alpha = 4^\circ$	$\alpha = 8^\circ$	$\alpha = 12^\circ$	x/l
$M = 0.800; q = 314 \text{ lb/sq ft}$								
.055	.047	.060	.061	.055	.045	.016	-.053	
.166	-.004	-.003	.001	-.004	-.013	-.046	-.113	
.277	-.022	-.018	-.010	-.026	-.030	-.060	-.123	
.353	-.007	-.007	-.006	-.009	-.012	-.006	-.005	
.367	.366	.379	.371	.433	.371	.303	.241	
.692	.042	.042	.038	.039	.043	.049	-.010	
.719	.011	.015	.011	.009	.014	.020	-.022	
.774	.010	.013	.007	.008	.008	.011	-.012	
.830	.035	.033	.027	.024	.030	.040	.012	
.871	.020	.020	.019	.018	.019	.021	.005	
.954	.036	.038	.035	.033	.032	.033	.024	
$M = 0.940; q = 370 \text{ lb/sq ft}$								
.055	.060	.066	.068	.065	.060	.026	-.029	
.166	-.008	-.001	-.003	-.006	-.015	-.005	-.101	
.277	-.026	-.026	-.024	-.029	-.032	-.054	-.093	
.353	-.012	-.011	-.015	-.012	-.034	-.014	-.014	
.367	.410	.399	.460	.472	.413	.369	.319	
.692	.043	.041	.041	.023	-.015	-.080	-.111	
.719	.023	.020	.021	.025	.010	-.028	-.079	
.774	.013	.011	.009	.023	.026	.010	-.088	
.830	.031	.028	.020	.028	.032	.026	-.061	
.871	.017	.016	.016	.019	.024	.011	-.034	
.954	.038	.036	.035	.037	.037	.035	.019	
$M = 1.050; q = 398 \text{ lb/sq ft}$								
.055	.102	.115	.123	.122	.111	.083	.023	
.166	.011	.023	.028	.027	.017	-.016	-.066	
.277	-.030	-.019	-.016	-.018	-.031	-.018	-.042	
.353	-.008	-.006	-.007	-.003	-.006	-.005	-.010	
.367	.478	.445	.437	.553	.461	.437	.396	
.692	-.096	-.088	-.083	-.075	-.075	-.087	-.146	
.719	-.106	-.101	-.100	-.091	-.095	-.119	-.140	
.774	-.081	-.076	-.077	-.072	-.081	-.105	-.108	
.830	-.118	-.043	-.051	-.048	-.064	-.092	-.115	
.871	-.061	-.061	-.059	-.059	-.068	-.078	-.113	
.954	-.058	-.025	-.027	-.033	-.061	-.101	-.185	
$M = 1.120; q = 425 \text{ lb/sq ft}$								
.055	.099	.109	.110	.111	.100	.071	.015	
.166	.027	.035	.037	.039	.022	-.012	-.073	
.277	-.001	.005	.006	.007	-.004	-.030	-.099	
.353	.005	.003	.002	.006	.000	.003	.003	
.367	.393	.384	.285	.425	.365	.318	.279	
.692	-.044	-.043	-.041	-.037	-.038	-.036	-.062	
.719	-.060	-.056	-.054	-.051	-.055	-.051	-.062	
.774	-.051	-.048	-.046	-.045	-.051	-.062	-.084	
.830	-.017	-.018	-.020	-.022	-.038	-.056	-.087	
.871	-.019	-.018	-.018	-.018	-.030	-.044	-.073	
.954	-.078	-.074	-.075	-.075	-.087	-.104	-.127	
$M = 1.200; q = 439 \text{ lb/sq ft}$								
.055	.051	.058	.060	.060	.055	.024	-.038	.055
.166	-.012	-.006	-.022	-.031	-.029	-.050	-.103	.164
.277	-.029	-.029	-.022	-.031	-.029	-.058	-.102	.277
.353	-.013	-.012	-.009	-.010	-.012	-.009	-.009	.353
.367	.399	.389	.427	.460	.392	.352	.291	.367
.692	.037	.036	.039	.041	.050	.032	-.036	.692
.719	.011	.008	.013	.015	.024	.031	-.051	.719
.774	.006	.003	.005	.003	.016	.017	-.051	.774
.830	.020	.023	.019	.020	.032	.037	-.005	.830
.871	.016	.011	.015	.015	.020	.020	-.003	.871
.954	.035	.029	.034	.031	.033	.029	.027	.954

TABLE V.- PRESSURE COEFFICIENTS AT STAGNATION PRESSURE OF
0.5 ATMOSPHERE FOR BODY IN PRESENCE OF WING - Continued

(d) Station D

x/l	a = -4°	a = -2°	a = 0°	a = 2°	a = 4°	a = 8°	a = 12°	x/l
M = 0.800; q = 314 lb/sq ft								
*166	-0.015	-0.001	.010	.014	.022	.050	.067	
*277	-0.016	-0.002	.004	.006	.011	.027	.019	
*367	-0.002	.039	.072	.093	.121	.175	.181	
*387	-1.132	-0.071	-0.202	.026	.066	.152	.220	
*443	-0.209	-1.138	-0.079	-0.311	.028	.140	.239	
*498	-1.189	-1.132	-0.086	-0.339	.015	.110	.199	
*553	-1.159	-1.110	-0.073	-0.336	.015	.093	.164	
*609	-1.106	-0.073	-0.044	-0.191	.015	.080	.124	
*664	-0.052	-0.031	-0.012	-0.002	.018	.058	.065	
*719	-0.011	-0.004	.001	.008	.017	.031	.011	
*774	.010	.015	.018	.019	.024	.030	.003	
*830	.016	.019	.019	.018	.015	.019	-0.002	
*871	-0.009	-0.012	-0.012	-0.017	-0.018	-0.026	-0.058	
M = 0.940; q = 370 lb/sq ft								
*166	-0.017	-0.003	.003	.011	.022	.049	.074	
*277	-0.019	-0.013	.007	-0.002	.007	.019	.045	
*367	.054	.076	.100	.123	.149	.203	.261	
*387	-0.089	-0.047	.001	.042	.088	.175	.268	
*443	-0.215	-1.157	-0.096	-0.037	.024	.147	.264	
*498	-0.258	-0.192	-0.121	-0.071	-0.007	.196	.224	
*553	-0.288	-0.200	-0.109	-0.069	-0.017	.080	.182	
*609	-0.295	-0.174	-0.086	-0.053	-0.015	.051	.136	
*664	-0.054	-0.035	.025	-0.016	-0.010	.015	.058	
*719	.004	.000	.004	.011	.002	-0.023	-0.048	
*774	.014	.017	.020	.027	.031	-0.004	-0.079	
*830	.013	.014	.014	.021	.026	.005	-0.080	
*871	-0.017	-0.016	-0.023	-0.020	-0.022	-0.045	-0.119	
M = 1.070; q = 398 lb/sq ft								
*166	.009	.021	.031	.048	.052	.071	.112	
*277	-0.020	-0.010	-0.001	.008	.006	.050	.087	
*367	.136	.154	.177	.198	.213	.270	.328	
*387	.008	.041	.082	.123	.158	.247	.334	
*443	-0.130	-0.073	-0.021	.032	.083	.209	.332	
*498	-0.169	-0.129	-0.064	-0.013	.036	.164	.288	
*553	-0.204	-0.162	-0.104	-0.052	-0.008	.140	.250	
*609	-0.235	-0.192	-0.135	-0.083	-0.029	.104	.201	
*664	-0.268	-0.214	-0.155	-0.096	-0.028	.063	.127	
*719	-0.148	-0.131	-0.081	-0.061	-0.069	-0.063	-0.050	
*774	-0.073	-0.067	-0.067	-0.059	-0.065	-0.081	-0.068	
*830	-0.054	-0.049	-0.048	-0.046	-0.051	-0.063	-0.077	
*871	-0.130	-0.103	-0.116	-0.123	-0.146	-0.172	-0.230	
M = 1.170; q = 439 lb/sq ft								
*166	.020	.030	.043	.055	.056	.075	.093	
*277	.010	.008	.024	.029	.028	.040	.030	
*367	.028	.011	.022	.010	-0.001	-0.026	-0.035	
*387	.011	.041	.063	.086	.094	.149	.110	
*443	-0.067	-0.030	.008	.052	.091	.204	.328	
*498	-0.098	-0.071	-0.015	.029	.069	.181	.300	
*553	-0.119	-0.095	-0.045	.002	.040	.140	.264	
*609	-0.130	-0.113	-0.069	-0.019	.017	.115	.230	
*664	-0.172	-0.134	-0.092	-0.038	.003	.110	.237	
*719	-0.108	-0.091	-0.070	-0.045	-0.030	.027	.064	
*774	-0.054	-0.046	-0.041	-0.031	-0.029	-0.014	-0.011	
*830	-0.015	-0.010	-0.010	-0.010	-0.016	-0.020	-0.047	
*871	-0.062	-0.066	-0.075	-0.089	-0.122	-0.129	-0.158	
M = 0.900; q = 357 lb/sq ft								
*166	-0.022	-0.010	.004	.011	.024	.048	.075	
*277	-0.020	-0.016	-0.004	-0.008	.008	.022	.037	
*367	.029	.053	.087	.109	.134	.188	.247	
*387	-0.115	-0.066	-0.009	-0.029	.077	.162	.252	
*443	-0.230	-0.165	-0.091	-0.039	.026	.141	.257	
*498	-0.243	-0.186	-0.111	-0.067	.004	.111	.214	
*553	-0.219	-0.159	-0.100	-0.065	.000	.090	.170	
*609	-0.152	-0.112	-0.069	-0.037	.003	.073	.130	
*664	-0.058	-0.045	-0.022	-0.008	.016	.049	.062	
*719	-0.013	-0.010	-0.003	.019	.019	.023	.023	
*774	.010	.008	.014	.014	.025	.023	.044	
*830	.016	.010	.014	.009	.018	.013	.032	
*871	-0.015	-0.022	-0.020	-0.019	-0.035	-0.083	-0.171	
M = 0.900; q = 389 lb/sq ft								
*166	-0.004	-0.008	.013	.024	.030	.073	.098	
*277	-0.009	-0.014	-0.003	.004	.012	.035	.070	
*367	.101	.108	.142	.159	.179	.235	.298	
*387	-0.033	-0.010	-0.039	.079	.119	.210	.303	
*443	-0.175	-0.127	-0.067	-0.016	.045	.173	.298	
*498	-0.219	-0.180	-0.109	-0.056	.003	.132	.252	
*553	-0.245	-0.222	-0.142	-0.100	-0.023	.100	.217	
*609	-0.280	-0.241	-0.171	-0.127	-0.042	.068	.166	
*664	-0.301	-0.253	-0.184	-0.123	-0.042	.020	.088	
*719	-0.153	-0.133	-0.105	-0.071	-0.096	.101	.065	
*774	-0.009	.003	.007	-0.007	-0.055	.109	.080	
*830	.027	.029	.033	.027	.005	.067	.109	
*871	.019	.012	.008	-0.009	.021	.007	.253	
M = 1.170; q = 405 lb/sq ft								
*166	.002	.016	.024	.037	.043	.054	.079	
*277	-0.013	-0.013	.002	.013	.014	.019	.011	
*367	.046	.050	.032	.039	.033	-0.006	.001	
*387	.001	.026	.058	.079	.108	.189	.324	
*443	-0.092	-0.059	-0.007	.031	.087	.208	.349	
*498	-0.136	-0.093	-0.044	.004	.054	.180	.320	
*553	-0.160	-0.118	-0.076	-0.022	.030	.152	.300	
*609	-0.174	-0.136	-0.090	-0.040	.012	.125	.266	
*664	-0.202	-0.154	-0.103	-0.058	-0.009	.117	.212	
*719	-0.118	-0.097	-0.056	-0.040	.000	.000	.029	
*774	-0.058	-0.050	-0.044	-0.037	-0.032	-0.036	-0.009	
*830	-0.024	-0.020	-0.019	.018	-0.021	-0.029	.048	
*871	-0.069	-0.066	-0.082	-0.090	-0.098	-0.129	-0.093	

TABLE V.- PRESSURE COEFFICIENTS AT STAGNATION PRESSURE OF
0.5 ATMOSPHERE FOR BODY IN PRESENCE OF WING - Concluded

(e) Station E

x/z	$\alpha = -4^\circ$	$\alpha = -2^\circ$	$\alpha = 0^\circ$	$\alpha = 2^\circ$	$\alpha = 4^\circ$	$\alpha = 8^\circ$	$\alpha = 12^\circ$		$\alpha = -4^\circ$	$\alpha = -2^\circ$	$\alpha = 0^\circ$	$\alpha = 2^\circ$	$\alpha = 4^\circ$	$\alpha = 8^\circ$	$\alpha = 12^\circ$	x/z
$M = 0.800; q = 314 \text{ lb/sq ft}$																
.055	.026	.046	.063	.083	.115	.178	.241		.031	.044	.057	.085	.118	.181	.259	.055
.166	-.018	-.007	.004	.020	.040	.089	.149		-.022	-.016	-.001	.013	.033	.087	.154	.166
.277	-.042	-.019	-.008	.002	.021	.063	.126		-.029	-.028	-.013	-.005	.017	.067	.128	.277
.367	-.030	-.001	.016	.044	.070	.143	.210		-.006	-.009	.028	.048	.080	.153	.224	.367
.387	-.099	-.057	-.025	.011	.046	.129	.226		-.085	-.058	-.018	.009	.055	.141	.245	.387
.443	-.170	-.114	-.065	-.020	.027	.131	.227		-.193	-.181	-.075	-.036	.022	.134	.242	.443
.498	-.167	-.114	-.065	-.025	.022	.118	.209		-.222	-.157	-.092	-.051	.012	.117	.217	.498
.553	-.142	-.098	-.054	-.016	.025	.107	.174		-.219	-.151	-.086	-.087	.008	.100	.189	.553
.609	-.105	-.070	-.042	-.012	.020	.083	.130		-.146	-.106	-.065	-.034	-.009	.079	.142	.609
.664	-.035	-.019	.001	.011	.040	.082	.096		-.045	-.032	-.011	.008	.034	.075	.095	.664
.719	-.020	-.011	-.006	-.003	.009	.031	.021		-.021	-.015	-.008	-.005	.012	.027	.007	.719
.774	.001	.012	.009	.013	.020	.030	.011		.001	.003	.008	.011	.019	.019	-.035	.774
.830	.008	.009	.009	.011	.013	.015	.005		.003	-.001	.005	.001	.011	.005	-.032	.830
.871	-.019	-.019	-.024	-.029	-.033	-.036	-.055		-.025	-.029	-.030	-.036	-.037	-.048	-.087	.871
.954	.059	.054	.049	.042	.043	.038	.025		.057	.052	.050	.045	.043	.039	.024	.954
$M = 0.940; q = 370 \text{ lb/sq ft}$																
.055	.035	.052	.072	.096	.123	.181	.262		.055	.064	.091	.109	.143	.206	.281	.055
.166	-.020	-.010	-.003	.018	.035	.083	.156		-.009	-.015	-.010	.024	.046	.098	.171	.166
.277	-.028	-.022	-.015	-.005	.010	.061	.134		-.015	-.025	-.011	-.001	.021	.076	.152	.277
.367	.017	.027	.039	.062	.091	.159	.237		.064	.059	.076	.094	.118	.188	.271	.367
.387	-.061	-.041	-.008	.024	.059	.147	.259		-.111	-.006	.030	.057	.092	.181	.288	.387
.443	.183	.133	.082	-.029	.023	.133	.253		-.144	-.104	-.053	-.006	.046	.159	.284	.443
.498	-.225	-.168	-.107	-.053	-.005	.111	.225		-.193	-.154	-.068	-.039	.014	.140	.255	.498
.553	-.256	-.196	-.130	-.064	-.007	.093	.193		-.222	-.188	-.124	-.084	-.021	.111	.224	.553
.609	-.288	-.164	-.083	-.047	-.009	.065	.142		-.269	-.238	-.173	-.120	-.037	.078	.175	.609
.664	-.045	-.023	-.010	.003	.015	.049	.099		-.272	-.229	-.165	-.102	-.015	.052	.126	.664
.719	-.006	-.006	-.002	.006	-.001	-.012	-.025		-.175	-.145	-.111	-.071	-.088	-.076	-.024	.719
.774	.010	.008	.015	.022	.023	.004	-.070		-.010	-.001	.004	-.008	-.058	-.102	-.059	.774
.830	.003	.005	.004	.009	.015	-.000	.077		.028	.021	.026	.015	-.005	-.065	-.090	.830
.871	-.024	-.025	-.030	-.034	-.031	-.060	-.123		.013	-.002	-.006	-.015	-.034	-.109	-.224	.871
.954	.058	.054	.054	.050	.043	.034	.015		.090	.075	.075	.071	.067	.047	-.126	.954
$M = 1.030; q = 398 \text{ lb/sq ft}$																
.055	.082	.105	.124	.150	.173	.234	.306		.056	.075	.095	.117	.147	.210	.277	.055
.166	.004	.015	.028	.051	.060	.112	.183		-.002	.011	.024	.038	.056	.102	.156	.166
.277	-.024	-.017	-.013	.006	.017	.081	.170		-.014	-.008	-.002	.011	.024	.057	.104	.277
.367	.102	.107	.125	.136	.156	.223	.299		-.051	-.065	-.067	-.063	-.056	-.030	.020	.367
.387	.031	.049	.070	.103	.131	.219	.320		-.027	.025	.026	.035	.045	.091	.294	.387
.443	-.098	-.057	-.011	.040	.083	.200	.316		-.056	-.025	-.019	.057	.102	.200	.336	.443
.498	-.152	-.104	-.052	-.007	.048	.188	.288		-.109	-.072	-.023	-.021	.070	.186	.320	.498
.553	-.186	-.135	-.084	-.035	.011	.144	.255		-.129	-.090	-.043	-.005	.048	.164	.301	.553
.609	-.229	-.183	-.137	-.085	-.028	.114	.208		-.164	-.133	-.084	-.036	.018	.130	.273	.609
.664	-.239	-.187	-.132	-.072	-.007	.091	.163		-.179	-.129	-.083	-.036	.012	.147	.249	.664
.719	-.179	-.146	-.118	-.087	-.066	-.037	-.003		-.162	-.126	-.095	-.063	-.029	.030	.087	.719
.774	-.074	-.067	-.071	.060	-.069	-.073	-.032		-.056	-.054	-.050	-.043	-.038	-.025	.017	.774
.830	-.059	-.059	-.058	-.053	-.060	-.055	-.039		-.023	-.026	-.025	-.016	-.019	-.014	.066	.830
.871	-.100	-.112	-.125	-.136	-.150	-.162	-.194		-.060	-.078	-.108	-.098	-.104	-.109	-.054	.871
.954	-.013	-.000	-.024	-.044	-.078	-.105	-.165		-.020	-.009	-.016	-.029	-.038	-.039	-.034	.954
$M = 1.200; q = 439 \text{ lb/sq ft}$																
.055	.077	.091	.114	.137	.157	.226	.290		.056	.075	.095	.117	.147	.210	.277	.055
.166	.017	.027	.038	.056	.069	.120	.172		-.002	.011	.024	.038	.056	.102	.156	.166
.277	.008	.010	.021	.034	.036	.078	.116		-.014	-.008	-.002	.011	.024	.057	.104	.277
.367	-.047	-.043	-.043	-.036	-.030	.003	.043		-.051	-.065	-.067	-.063	-.056	-.030	.020	.367
.387	.021	.019	.026	.026	.020	.049	.090		-.027	.025	.026	.035	.045	.091	.294	.387
.443	-.041	-.012	.018	.056	.090	.198	.316		-.056	-.025	-.019	.057	.102	.200	.336	.443
.498	-.074	-.046	.002	.047	.083	.193	.306		-.109	-.072	-.023	-.021	.070	.186	.320	.498
.553	-.102	-.063	-.022	.026	.061	.173	.282		-.129	-.090	-.043	-.005	.048	.164	.301	.553
.609	-.132	-.102	-.066	-.020	-.023	.131	.238		-.164	-.133	-.084	-.036	.018	.130	.273	.609
.664	-.145	-.106	-.058	-.004	.036	.141	.262		-.179	-.129	-.083	-.036	.012	.147	.249	.664
.719	-.150	-.124	-.091	-.052	-.019	.064	.136		-.162	-.126	-.095	-.063	-.029	.030	.087	.719
.774	-.055	-.056	.049	-.038	-.032	-.002	.022		-.056	-.054	-.050	-.043	-.038	-.025	.017	.774
.830	-.015	-.014	-.011	-.003	.002	.016	.018		-.023	-.026	-.018	-.014	-.010	-.010	.054	.830
.871	-.069	-.095	.087	-.097	-.095	-.096	-.089		-.032	-.032	-.029	-.029	-.038	-.039	-.034	.871
.954	-.032	-.040	-.053	-.059	-.066	-.071	-.082									.954
$M = 0.900; q = 357 \text{ lb/sq ft}$																
.055	.044	.057	.085	.118	.181	.259	.355		.031	.044	.057	.085	.118	.181	.259	.055
.166	-.022	-.016	-.001	.013	.017	.067	.126		-.029	-.028	-.013	-.005	.017	.067	.126	.277
.277	-.017	-.012	-.005	.010	.016	.063	.126		-.006	-.009	.028	.048	.080	.153	.224	.367
.367	-.099	-.057	-.015	-.005	.010	.061	.134		-.085	-.058	-.018	-.009	.055	.141	.245	.387
.387	.017	.027	.039	.062	.091	.159	.237		-.193	-.181	-.075	-.036	.022	.134	.242	.443
.443	-.061	-.041	-.008	.024	.059	.147	.259		-.222	-.157	-.092	-.051	.012	.117	.217	.498
.498	-.225	-.168	-.107	-.053	-.005	.111	.225		-.219	-.154	-.068	-.039	.014	.140	.255	.553
.553	-.256	-.196	-.130	-.064	-.007	.093	.193		-.222	-.188	-.124	-.084	-.021	.111	.224	.553
.609	-.288	-.164	-.083	-.047	-.004	.065	.142		-.269	-.238	-.173	-.120	-.037	.078	.175	.609
.664	-.045	-.023	-.012	.006	.017	.061	.130		-.272	-.229	-.165	-.102	-.015	.052	.126	.664
.719	-.006	-.019	-.011	.003	.015	.049	.108		-.175	-.145	-.071	-.031	-.012	.047	.108	.719
.774	-.059	-.095	.087	-.097	-.095	-.096	-.089		-.023	-.026	-.018	-.014	-.010	-.010	.054	.830
.830	-.015	-.014	-.011	-.003	.002	.016	.018		-.032	-.032	-.029	-.029	-.038	-.039	-.034	.871
.871	-.069	-.095	.087	-.097	-.095	-.096	-.089									.954
$M = 1.125; q = 423 \text{ lb/sq ft}$																
.055	.075	.095	.117	.147	.210	.277	.355		.056	.075	.095					

TABLE VI.-- PRESSURE COEFFICIENTS AT STAGNATION PRESSURE
OF 1.0 ATMOSPHERE FOR BODY IN PRESENCE OF WING

(a) Station A

x/l	$\alpha = -4^\circ$	$\alpha = -2^\circ$	$\alpha = 0^\circ$	$\alpha = 2^\circ$	$\alpha = 4^\circ$	$\alpha = 8^\circ$	$\alpha = 12^\circ$	x/l
$M = 0.800; q = 616 \text{ lb/sq ft}$								
.055	.065	.038	.017	.002	-.005			
.166	.042	.026	.008	-.005	-.017			
.277	.024	.006	-.008	-.021	-.044			
.367	.149	.119	.090	.062	.034			
.387	.103	.066	.029	-.006	-.042			
.415	.058	.017	-.030	-.071	-.118			
.443	.045	-.001	-.052	-.099	-.152			
.498	.020	-.030	-.081	-.131	-.187			
.553	-.002	-.046	-.093	-.140	-.186			
.581	-.041	-.075	-.115	-.152	-.192			
.609	-.018	-.050	.086	-.117	-.151			
.636	-.031	-.055	-.080	-.103	-.126			
.664	-.031	-.043	-.067	-.082	-.097			
.692	-.010	-.024	-.035	-.048	-.055			
.719	-.004	-.011	-.020	-.027	-.029			
.774	.021	.017	.011	.010	.009			
.830	-.002	-.002	-.002	-.000	-.001			
.871	-.026	-.023	-.018	-.011	-.010			
.954								
$M = 0.940; q = 731 \text{ lb/sq ft}$								
.055	.055	.030	.023	.001	-.008			
.166	.041	.018	.002	-.011	-.017			
.277	.019	-.007	-.020	-.027	-.029			
.367	.179	.145	.122	.097	.082			
.387	.136	.092	.061	.032	.008			
.415	.081	.031	-.008	-.045	-.076			
.443	.058	.001	-.045	-.089	-.127			
.498	.010	-.054	-.100	-.150	-.195			
.553	-.045	-.117	-.168	-.221	-.264			
.581	-.091	-.157	-.222	-.272	-.314			
.609	-.068	-.139	-.221	-.278	-.320			
.636	-.067	-.116	-.223	-.310	-.356			
.664	-.055	-.078	-.096	-.279	-.373			
.692	-.017	-.031	-.029	-.048	-.145			
.719	.001	-.012	-.011	-.004	-.010			
.774	.024	.015	.015	.024	.034			
.830	-.002	-.007	-.002	.003	.020			
.871	-.030	-.027	-.021	-.014	.002			
.954								
$M = 0.900; q = 700 \text{ lb/sq ft}$								
.047	.029	.011	-.002	-.003				
.040	.020	.003	-.010	-.018				
.019	-.000	-.018	-.028	-.030				
.168	.135	.105	.082	.062				
.121	.080	.043	.014	-.014				
.072	.024	-.023	-.059	-.099				
.048	-.003	-.055	-.101	-.144				
.011	.048	.148	.156	.205				
.027	-.086	-.148	-.215	-.273				
.065	.115	.173	.241	.322				
.043	-.088	-.139	-.194	-.313				
.050	.082	.118	.144	.210				
.045	.069	.089	.101	.105				
.016	.030	.044	.051	.049				
.006	.014	.023	.023	.021				
.019	.015	.009	.011	.015				
.005	-.006	-.006	-.002	.003				
.033	-.028	-.022	-.016	-.013				
$M = 0.980; q = 767 \text{ lb/sq ft}$								
.070	.012	.035	.000					
.049	.027	.018	.000	-.011				
.025	.000	-.006	-.021	-.022				
.206	.175	.158	.131	.115				
.165	.126	.102	.069	.046				
.110	.064	.032	-.010	-.044				
.079	.028	-.008	-.056	-.098				
.030	-.023	-.068	-.119	-.163				
.043	-.101	-.138	-.192	-.236				
.104	.161	.198	.251	.294				
.110	.167	.204	.257	.301				
.145	.204	.244	.298	.342				
.165	.228	.270	.324	.372				
.161	.218	-.258	-.313	-.363				
.111	.109	.122	-.157	-.229				
.029	.041	.044	.028	-.006				
.015	.027	.042	.038	.033				
.010	.004	.024	.031	.035				

TABLE VI.-- PRESSURE COEFFICIENTS AT STAGNATION PRESSURE OF
1.0 ATMOSPHERE FOR BODY IN PRESENCE OF WING - Continued

(a) Station A - Concluded

x/l	$\alpha = -4^\circ$	$\alpha = -2^\circ$	$\alpha = 0^\circ$	$\alpha = 2^\circ$	$\alpha = 4^\circ$	$\alpha = 8^\circ$	$\alpha = 12^\circ$	x/l
$M = 1.030; q = 796 \text{ lb/sq ft}$								
.055	.140	.133	.105	.105	.101			
.166	.085	.067	.054	.039	.033			
.277	.026	.015	.003	-.009	-.014			
.367	.248	.210	.183	.163	.151			
.387	.214	.172	.141	.120	.098			
.415	.162	.110	.074	.042	.015			
.443	.133	.077	.035	-.006	-.038			
.498	.084	.028	-.024	-.069	-.106			
.553	.011	-.045	-.095	-.137	-.172			
.581	-.048	-.102	-.150	-.193	-.228			
.609	-.055	-.108	-.159	-.200	-.233			
.636	-.096	-.146	-.195	-.235	-.270			
.664	-.121	-.171	-.218	-.261	-.299			
.692	-.117	-.165	-.209	-.250	-.293			
.719	-.109	-.125	-.142	-.172	-.208			
.774	-.055	-.042	-.038	-.049	-.060			
.830	-.077	-.064	-.056	-.061	-.066			
.871	-.126	-.104	-.088	-.082	-.082			
.954								
$M = 1.200; q = 880 \text{ lb/sq ft}$								
.055	.122	.080	.112	.073	.035	.035	.000	
.166	.077	.056	.050	.030	.018	.001	-.006	
.277	.040	.022	.016	.004	.006	-.011	-.012	
.367	.068	.054	.042	.029	.031	.041	.049	
.387	.053	.045	.046	.049	.046	.039	.034	
.415	.165	.128	.104	.063	.036	-.013	-.054	
.443	.158	.116	.076	.035	.004	-.060	-.107	
.498	.127	.081	.038	-.015	-.053	-.108	-.156	
.553	.062	.018	-.023	-.067	-.101	-.161	-.207	
.581	.004	-.038	-.066	-.116	-.154	-.213	-.271	
.609	.011	-.036	-.079	-.127	-.156	-.215	-.266	
.636	-.034	-.074	-.110	-.148	-.186	-.244	-.292	
.664	-.056	-.097	-.141	-.186	-.218	-.272	-.324	
.692	-.064	-.103	-.137	-.181	-.214	-.280	-.346	
.719	-.079	-.116	-.146	-.185	-.218	-.287	-.361	
.774	-.047	-.053	-.051	-.061	-.063	-.063	-.077	
.830	-.053	-.054	-.050	-.048	-.043	-.032	-.021	
.871	-.098	-.085	-.069	-.053	-.041	-.031	-.032	
.954								
$M = 1.125; q = 847 \text{ lb/sq ft}$								
.055	.122	.080	.112	.073	.035	.035	.000	
.166	.066	.053	.033	.019	.007			
.277	.023	.010	-.007	-.015	-.023			
.367	.057	.045	.035	.032	.030			
.387	.155	.118	.090	.077	.058			
.415	.162	.123	.083	.051	.019			
.443	.140	.093	.046	.010	-.024			
.498	.098	.045	-.003	-.045	-.084			
.553	.036	.011	-.064	-.101	-.138			
.581	.016	-.062	-.114	-.152	-.192			
.636	.023	-.070	-.119	-.157	-.194			
.664	.051	.104	-.151	-.184	-.220			
.692	.081	.124	-.172	-.211	-.249			
.719	.081	.127	-.174	-.211	-.251			
.774	.082	.119	-.158	-.188	-.220			
.830	.042	-.042	-.050	-.053	-.057			
.871	.059	-.053	-.053	-.045	-.045			
.954	.106	-.086	-.074	-.059	-.050			

TABLE VI.-- PRESSURE COEFFICIENTS AT STAGNATION PRESSURE OF
 1.0 ATMOSPHERE FOR BODY IN PRESENCE OF WING - Continued

(b) Station B

x/i	$\alpha = -4^\circ$	$\alpha = -2^\circ$	$\alpha = 0^\circ$	$\alpha = 2^\circ$	$\alpha = 4^\circ$	$\alpha = 8^\circ$	$\alpha = 12^\circ$	x/i
$M = 0.800; q = 616 \text{ lb/sq ft}$								
.166	.026	.021	.010	.001	-.013			
.277	.004	-.000	-.009	-.020	-.031			
.367	.093	.071	.042	.010	-.023			
.387	.178	.138	.091	.041	-.012			
.443	.062	.009	-.049	-.106	-.167			
.498	-.004	-.053	-.149	-.159	-.214			
.553	-.053	-.096	-.143	-.181	-.235			
.609	-.041	-.073	-.104	-.135	-.168			
.664	-.024	-.041	-.057	-.068	-.085			
.719	.002	-.002	-.007	-.014	-.016			
.774								
.830	.003	.001	.005	.007	.006			
.871	.003	.007	.005	.003	.007			
$M = 0.940; q = 731 \text{ lb/sq ft}$								
.166	.028	.015	.007	-.004	-.013			
.277	-.002	-.015	-.019	-.028	-.032			
.367	.126	.094	.073	.052	.031			
.387	.218	.165	.126	.088	.047			
.443	.073	.013	-.039	-.087	-.135			
.498	-.016	-.075	-.121	-.175	-.223			
.553	-.099	-.164	-.220	-.265	-.313			
.609	-.092	-.156	-.246	-.303	-.350			
.664	-.047	-.069	-.084	-.245	-.359			
.719	.009	-.003	.001	.009	-.002			
.774								
.830	.003	-.001	.002	.008	.020			
.871	.002	-.011	-.001	-.001	.001			
$M = 1.050; q = 796 \text{ lb/sq ft}$								
.166	.073	.070	.062	.048	.039			
.277	.010	.009	.002	-.007	-.016			
.367	.200	.164	.138	.122	.106			
.387	.298	.248	.208	.171	.139			
.443	.143	.090	.039	-.005	-.047			
.498	.057	.003	-.051	-.094	-.133			
.553	-.042	-.095	-.141	-.179	-.218			
.609	-.083	-.137	-.186	-.226	-.269			
.664	-.118	-.171	-.218	-.259	-.296			
.719	-.102	-.103	-.111	-.130	-.151			
.774								
.830	-.070	-.058	-.054	-.058	-.067			
.871	-.088	-.077	-.071	-.074	-.084			
$M = 1.200; q = 880 \text{ lb/sq ft}$								
.166	.064	.058	.052	.037	.021	-.012	-.046	
.277	.022	.017	.015	.004	-.002	-.029	-.054	
.367	-.062	-.057	-.053	-.059	-.058	-.055	-.046	
.387	.243	.213	.182	.145	.115	.050	.017	
.443	.160	.117	.076	.027	-.012	-.086	-.168	
.498	.097	.055	.013	-.037	-.080	-.153	-.225	
.553	.027	-.020	-.060	-.104	-.143	-.220	-.285	
.609	-.022	-.058	-.094	-.135	-.174	-.248	-.330	
.664	-.069	-.108	-.146	-.188	-.225	-.296	-.380	
.719	-.072	-.087	-.101	-.123	-.138	-.151	-.174	
.774								
.830	-.055	-.051	-.046	-.052	-.051	-.049	-.055	
.871	-.059	-.054	-.044	-.047	-.060	-.071	-.073	
$M = 0.900; q = 700 \text{ lb/sq ft}$								
.166	.026	.016	.005	-.002	-.014			
.277	-.001	-.009	-.019	-.023	-.032			
.367	.110	.084	.058	.033	.008			
.387	.200	.155	.110	.067	.024			
.443	.066	.010	-.051	-.100	-.155			
.498	-.014	-.070	-.127	-.177	-.232			
.553	-.079	-.134	-.197	-.263	-.324			
.609	-.067	-.109	-.155	-.205	-.343			
.664	-.040	-.058	-.078	-.089	-.093			
.719	-.000	-.005	-.010	-.010	-.004			
.774								
.830	.001	.001	.001	.005	.008			
.871	-.008	-.006	-.007	-.005	-.003			
$M = 0.980; q = 767 \text{ lb/sq ft}$								
.166	.036	.026	.024	.007	-.005			
.277	.006	-.008	-.006	-.021	-.028			
.367	.153	.125	.112	.084	.063			
.387	.253	.208	.174	.127	.089			
.443	.100	.036	-.002	-.057	-.104			
.498	.002	-.049	-.092	-.146	-.191			
.553	-.098	-.154	-.188	-.238	-.284			
.609	-.136	-.197	-.232	-.285	-.335			
.664	-.164	-.229	-.270	-.323	-.369			
.719	-.095	-.084	-.088	-.121	-.184			
.774								
.830	.021	.032	.044	.036	.028			
.871	.015	.021	.036	.032	.031			
$M = 1.125; q = 847 \text{ lb/sq ft}$								
.166	.052	.050	.039	.026	.011			
.277	.006	.005	-.004	-.014	-.024			
.367	-.049	-.043	-.043	-.042	-.040			
.387	.262	.220	.179	.147	.111			
.443	.149	.098	.048	.006	-.038			
.498	.067	.020	-.028	-.071	-.112			
.553	-.012	-.060	-.104	-.140	-.179			
.609	-.057	-.102	-.146	-.186	-.225			
.664	-.081	-.127	-.174	-.213	-.253			
.719	-.069	-.084	-.107	-.119	-.133			
.774								
.830	-.054	-.046	-.045	-.045	-.046			
.871	-.062	-.055	-.053	-.047	-.056			

TABLE VI.- PRESSURE COEFFICIENTS AT STAGNATION PRESSURE OF
1.0 ATMOSPHERE FOR BODY IN PRESENCE OF WING - Continued

(c) Station C

x/l	$\alpha = -4^\circ$	$\alpha = -2^\circ$	$\alpha = 0^\circ$	$\alpha = 2^\circ$	$\alpha = 4^\circ$	$\alpha = 8^\circ$	$\alpha = 12^\circ$	$\alpha = -4^\circ$	$\alpha = -2^\circ$	$\alpha = 0^\circ$	$\alpha = 2^\circ$	$\alpha = 4^\circ$	$\alpha = 8^\circ$	$\alpha = 12^\circ$	x/l
$M = 0.800; q = 616 \text{ lb/sq ft}$															
$M = 0.940; q = 731 \text{ lb/sq ft}$															
$M = 1.030; q = 796 \text{ lb/sq ft}$															
$M = 1.125; q = 847 \text{ lb/sq ft}$															
$M = 1.200; q = 880 \text{ lb/sq ft}$															
.055	.046	.058	.061	.058	.049			.051	.060	.061	.061	.054			.055
.166	-.008	.004	.006	.002	-.006			-.009	-.002	.001	.001	-.006			.166
.277	-.024	-.013	-.008	-.012	-.021			-.025	-.019	-.019	-.019	-.025			.277
.353	-.008	-.006	-.006	-.005	-.006			-.011	-.012	-.011	-.011	-.011			.353
.367	.355	.364	.367	.372	.366			.380	.379	.377	.380	.385			.367
.692	.045	.045	.046	.050	.056			.044	.045	.044	.049	.059			.692
.719	.016	.016	.014	.018	.023			.017	.016	.015	.021	.032			.719
.774	.010	.012	.010	.011	.016			.011	.010	.010	.013	.022			.774
.830	.045	.045	.035	.037	.050			.043	.042	.032	.037	.049			.830
.871	.023	.025	.022	.024	.026			.019	.019	.018	.023	.026			.871
.954	.033	.037	.037	.034	.034			.035	.035	.034	.035	.036			.954
$M = 0.900; q = 700 \text{ lb/sq ft}$															
$M = 0.980; q = 767 \text{ lb/sq ft}$															
$M = 1.125; q = 847 \text{ lb/sq ft}$															
$M = 1.200; q = 880 \text{ lb/sq ft}$															
.055	.111	.119	.121	.122	.113			.081	.088	.088	.087	.079			.055
.166	.038	.050	.052	.049	.042			.013	.029	.030	.028	.017			.166
.277	-.014	-.001	.000	.000	-.009			-.007	-.003	-.001	-.014				.277
.353	-.005	-.005	-.004	-.002	-.004			-.009	-.006	-.018	-.024				.353
.367	.438	.420	.410	.414	.425			.421	.413	.415	.409	.414			.367
.692	-.075	-.059	-.053	-.049	-.052			-.016	-.093	-.078	-.076	-.100			.692
.719	-.090	-.073	-.067	-.071	-.077			-.071	-.049	-.040	-.064	-.116			.719
.774	-.071	-.050	-.044	-.052	-.067			-.019	-.033	-.036	-.011	-.024			.774
.830	-.028	-.019	-.020	-.026	-.042			.064	.066	.066	.052	.032			.830
.871	-.056	-.045	-.046	-.052	-.059			.043	.046	.052	.045	.040			.871
.954	-.088	-.085	-.081	-.080	-.085			.059	.059	.066	.059	.061			.954

TABLE VI.- PRESSURE COEFFICIENTS AT STAGNATION PRESSURE OF
 1.0 ATMOSPHERE FOR BODY IN PRESENCE OF WING - Continued

(d) Station D

$x/2$	$\alpha = -4^\circ$	$\alpha = -2^\circ$	$\alpha = 0^\circ$	$\alpha = 2^\circ$	$\alpha = 4^\circ$	$\alpha = 8^\circ$	$\alpha = 12^\circ$	$x/2$
$M = 0.800; q = 616 \text{ lb/sq ft}$								
*166	*.010	*.024	*.036	*.047	*.057			
277	-.015	-*.002	.008	.013	.023			
367	-.003	*.038	.073	.101	.130			
387	-.133	-*.072	-*.019	*.025	.071			
443	-.203	-*.135	-*.075	-*.022	.032			
498	-.193	-*.139	-*.083	-*.038	.013			
553	-.139	-*.094	-*.050	-*.011	.031			
609	-.107	-*.074	-*.042	-*.018	.017			
664	-.050	-*.032	-*.016	-*.000	.018			
719	-.010	*.000	.007	.012	.020			
*774	*.008	*.015	.020	.023	.028			
*830	*.020	*.024	*.025	*.025	*.029			
871	-.009	-*.011	-*.014	-*.014	-*.016			
$M = 0.940; q = 731 \text{ lb/sq ft}$								
*166	*.011	*.019	*.033	*.044	*.057			
277	-.016	-*.013	-*.003	*.003	*.015			
*367	*.055	*.074	.102	*.128	*.156			
387	-.090	-*.048	-*.001	*.041	*.088			
443	-.215	-*.156	-*.095	-*.037	*.028			
498	-.256	-*.196	-*.127	-*.071	-*.007			
553	-.252	-*.194	-*.125	-*.061	-*.001			
609	-.294	-*.169	-*.085	-*.052	-*.013			
664	-.050	-*.035	-*.024	-*.015	-*.008			
*719	*.009	*.005	.012	.016	.014			
*774	*.019	*.017	.024	*.032	*.039			
*830	*.018	*.015	*.023	*.027	*.036			
871	-.011	-*.018	-*.020	-*.020	-*.017			
$M = 1.050; q = 796 \text{ lb/sq ft}$								
*166	*.055	*.072	.080	*.092	*.101			
277	-.003	*.011	.019	*.027	*.033			
*367	*.142	*.150	*.161	*.184	*.212			
*387	*.013	*.043	*.076	*.115	*.157			
443	-.121	-*.078	-*.029	*.025	*.086			
498	-.171	-*.128	-*.074	-*.013	*.045			
553	-.166	-*.124	-*.079	-*.024	*.028			
609	-.220	-*.176	-*.128	-*.068	-*.016			
664	-.246	-*.189	-*.141	-*.080	-*.025			
719	-.129	-*.090	-*.069	-*.059	-*.052			
774	-.060	-*.040	-*.033	-*.038	-*.050			
830	-.044	-*.031	-*.026	-*.027	-*.033			
871	-.092	-*.097	-*.106	-*.122	-*.140			
$M = 1.100; q = 896 \text{ lb/sq ft}$								
*166	*.044	*.055	*.069	*.077	*.084	*.095	*.104	
*277	*.017	*.025	*.035	*.037	*.040	*.049	*.044	
*367	*.033	*.032	*.032	*.023	*.013	-*.015	-*.033	
*387	*.007	*.032	*.056	*.074	*.098	*.146	*.196	
443	-.072	-*.038	*.003	*.042	*.091	*.200	*.334	
498	-.107	-*.068	-*.017	*.025	*.073	*.184	*.307	
553	-.093	-*.056	-*.010	*.032	*.079	*.185	*.285	
609	-.131	-*.106	-*.057	-*.015	*.026	*.121	*.232	
664	-.171	-*.133	-*.088	-*.043	*.004	*.102	*.226	
719	-.107	-*.091	-*.066	-*.047	-*.026	*.025	*.068	
774	-.054	-*.048	-*.038	-*.035	-*.031	-*.019	-*.017	
830	-.010	-*.008	-*.002	-*.009	-*.015	-*.022	-*.045	
871	-.060	-*.067	-*.074	-*.096	-*.109	-*.137	-*.165	
$M = 0.900; q = 700 \text{ lb/sq ft}$								
*166	*.010	*.022	*.032	*.045	*.055			
277	-.016	-*.009	-*.002	*.007	*.017			
*367	*.030	*.059	*.088	*.115	*.143			
387	-.115	-*.063	-*.013	*.033	*.077			
443	-.224	-*.156	-*.093	-*.033	*.025			
498	-.244	-*.175	-*.108	-*.055	-*.000			
553	-.217	-*.142	-*.084	-*.036	*.014			
609	-.146	-*.103	-*.066	-*.031	*.005			
664	-.056	-*.040	-*.023	-*.007	*.015			
719	-.008	*.001	*.004	*.013	*.025			
*774	*.011	*.016	*.017	*.023	*.031			
*830	*.016	*.020	*.020	*.024	*.029			
871	-.014	-*.017	-*.022	-*.021	-*.020			
$M = 0.980; q = 767 \text{ lb/sq ft}$								
*166	*.019	*.029	*.048	*.049	*.059			
277	-.007	-*.004	*.010	*.009	*.017			
*367	*.092	*.112	*.140	*.155	*.181			
387	-.050	-*.008	*.038	*.068	*.110			
443	-.185	-*.128	-*.070	-*.023	*.034			
498	-.234	-*.182	-*.112	-*.065	*.008			
553	-.231	-*.180	-*.116	-*.084	*.022			
609	-.286	-*.232	-*.168	-*.126	*.051			
664	-.305	-*.246	-*.182	-*.123	*.055			
719	-.098	-*.050	-*.028	-*.047	*.091			
*774	*.032	*.041	*.044	*.018	-*.010			
*830	*.044	*.049	*.054	*.040	*.027			
*871	*.020	*.012	*.012	-*.005	*.012			
$M = 1.110; q = 847 \text{ lb/sq ft}$								
*166	*.029	*.045	*.056	*.067	*.077			
277	-.002	*.009	*.013	*.024	*.027			
*367	*.046	*.051	*.048	*.045	*.034			
387	-.006	*.022	*.044	*.072	*.100			
443	-.097	-*.063	-*.026	*.022	*.072			
498	-.145	-*.100	-*.052	-*.001	*.052			
553	-.132	-*.087	-*.044	*.002	*.048			
609	-.177	-*.133	-*.090	-*.042	*.006			
664	-.199	-*.150	-*.105	-*.058	-*.010			
719	-.111	-*.084	-*.069	-*.048	-*.027			
774	-.047	-*.038	-*.038	-*.033	-*.031			
830	-.022	-*.013	-*.014	-*.010	-*.013			
871	-.066	-*.074	-*.089	-*.099	-*.112			

TABLE VI.- PRESSURE COEFFICIENTS AT STAGNATION PRESSURE OF
1.0 ATMOSPHERE FOR BODY IN PRESENCE OF WING - Concluded

(e) Station E

x/l	$\alpha = -4^\circ$	$\alpha = -2^\circ$	$\alpha = 0^\circ$	$\alpha = 2^\circ$	$\alpha = 4^\circ$	$\alpha = 8^\circ$	$\alpha = 12^\circ$	$\alpha = -4^\circ$	$\alpha = -2^\circ$	$\alpha = 0^\circ$	$\alpha = 2^\circ$	$\alpha = 4^\circ$	$\alpha = 8^\circ$	$\alpha = 12^\circ$	x/l
$M = 0.800; q = 616 \text{ lb/sq ft}$															
$M = 0.940; q = 731 \text{ lb/sq ft}$															
$M = 1.050; q = 796 \text{ lb/sq ft}$															
$M = 1.200; q = 880 \text{ lb/sq ft}$															
.055	.024	.043	.063	.088	.114			.027	.045	.056	.078	.118			.055
.166	-.010	.001	.013	.029	.047			-.011	-.002	.006	.025	.043			.166
.277	-.031	-.017	-.006	.008	.026			-.027	-.021	-.014	-.001	.019			.277
.367	-.031	-.004	.023	.048	.080			-.008	-.011	-.032	.056	.086			.367
.387	-.096	-.059	-.022	-.010	.051			-.083	-.051	-.018	.017	.056			.387
.443	-.168	-.111	-.061	-.017	.030			-.189	-.131	-.079	-.026	.024			.443
.498	-.164	-.112	-.064	-.022	.026			-.216	-.151	-.091	-.040	.013			.498
.553	-.137	-.095	-.053	-.013	.028			-.217	-.142	-.088	-.037	.010			.553
.609	-.097	-.067	-.035	-.006	.028			-.135	-.094	-.059	-.023	.014			.609
.664	-.031	-.010	.008	.026	.048			-.039	-.019	-.000	.022	.046			.664
.719	-.019	-.011	-.003	.006	.016			-.019	-.011	-.006	.005	.017			.719
.774	.005	.009	.013	.017	.023			-.005	-.007	-.009	.016	.025			.774
.830	.011	.012	.013	.015	.018			-.008	-.007	-.006	.013	.019			.830
.871	-.020	-.022	-.025	-.028	-.031			-.024	-.028	-.032	-.034	-.036			.871
.954	.056	.053	.051	.048	.045			-.056	-.054	-.051	-.050	-.048			.954
$M = 0.900; q = 700 \text{ lb/sq ft}$															
.055	.035	.049	.072	.094	.118			.049	.066	.096	.110	.138			.055
.166	-.008	-.004	.009	.024	.045			-.001	-.005	-.026	.034	.054			.166
.277	-.022	-.026	-.017	-.003	.017			-.015	-.019	-.004	.001	.020			.277
.367	.018	.026	.047	.067	.096			-.054	-.061	-.082	.092	.121			.367
.387	-.061	-.040	-.007	.025	.065			-.019	-.002	-.030	.050	.086			.387
.443	-.178	-.131	-.082	-.032	.025			-.151	-.101	-.056	-.016	.035			.443
.498	-.223	-.167	-.106	-.055	.005			-.202	-.152	-.088	-.045	.008			.498
.553	-.251	-.194	-.130	-.064	-.005			-.228	-.184	-.124	-.089	-.028			.553
.609	-.283	-.155	-.078	-.044	-.004			-.274	-.226	-.164	-.120	-.041			.609
.664	-.032	-.018	-.001	.015	.027			-.270	-.215	-.150	-.089	-.015			.664
.719	-.002	-.007	.002	.007	.007			-.111	-.058	-.024	-.045	-.088			.719
.774	.014	.009	.017	.023	.032			-.033	-.035	-.036	.010	-.017			.774
.830	.011	.007	.010	.016	.026			-.044	-.037	-.042	.029	.016			.830
.871	-.024	-.029	-.030	-.032	-.032			-.011	-.000	-.002	-.021	-.031			.871
.954	.059	.057	.056	.053	.053			-.085	-.076	-.080	-.067	-.065			.954
$M = 0.980; q = 767 \text{ lb/sq ft}$															
.055	.049	.066	.096	.110	.138			.049	.066	.096	.110	.138			.055
.166	-.001	-.005	-.026	.034	.054			-.015	-.019	-.004	.001	.020			.166
.277	-.015	-.019	-.004	.001	.020			-.054	-.061	-.082	.092	.121			.277
.367	-.019	-.002	-.030	.050	.086			-.151	-.101	-.056	-.016	.035			.367
.387	-.011	-.012	-.024	-.027	.037			-.202	-.152	-.088	-.045	.008			.387
.443	-.228	-.184	-.124	-.089	-.028			-.228	-.184	-.124	-.089	-.028			.443
.498	-.274	-.226	-.164	-.120	-.041			-.270	-.215	-.150	-.089	-.028			.498
.553	-.111	-.058	-.024	-.045	-.088			-.111	-.058	-.024	-.045	-.088			.553
.609	-.033	-.035	-.036	-.036	-.036			-.033	-.035	-.036	-.036	-.036			.609
.664	-.044	-.047	-.047	-.047	-.047			-.044	-.047	-.047	-.047	-.047			.664
.719	-.021	-.155	-.109	-.047	-.011			-.151	-.118	-.075	-.024	-.026			.719
.774	-.160	-.110	-.080	-.065	-.049			-.158	-.119	-.089	-.055	-.026			.774
.830	-.061	-.047	-.041	-.046	-.056			-.054	-.048	-.048	-.043	-.039			.830
.871	-.052	-.045	-.038	-.038	-.041			-.028	-.024	-.026	-.022	-.020			.871
.954	-.104	-.111	-.121	-.136	-.149			-.077	-.087	-.101	-.107	-.114			.954
$M = 1.125; q = 847 \text{ lb/sq ft}$															
.055	.075	.093	.119	.137	.164	.228	.303	.055	.075	.094	.119	.145			.055
.166	.028	.038	.055	.069	.086	.131	.190	.010	.023	.037	.055	.074			.166
.277	.008	.013	.027	.033	.045	.090	.139	-.016	-.005	-.062	-.057	-.046			.277
.367	-.041	-.045	-.042	-.034	-.019	.008	.053	-.048	-.026	-.027	.036	.041			.367
.387	-.017	-.019	-.025	.016	.018	.044	.085	-.070	-.030	-.014	-.027	.074			.387
.443	-.044	-.016	.016	.049	.090	.192	.315	-.108	-.068	-.026	-.018	.067			.443
.498	-.081	-.044	.003	.044	.089	.194	.313	-.133	-.091	-.047	-.001	.047			.498
.553	-.099	-.063	-.016	.023	.071	.175	.288	-.127	-.122	-.081	-.031	.016			.553
.609	-.127	-.105	-.058	-.015	.037	.141	.247	-.165	-.118	-.075	-.024	.026			.609
.664	-.137	-.096	-.049	.003	.052	.150	.263	-.158	-.119	-.089	-.055	-.026			.664
.719	-.151	-.121	-.083	-.053	-.015	.063	.131	-.158	-.104	-.073	-.043	-.016			.719
.774	-.057	-.056	-.047	-.043	-.035	-.009	.018	-.054	-.054	-.047	-.024	-.014			.774
.830	-.009	-.010	-.004	-.001	-.003	.016	.019	-.054	-.054	-.047	-.024	-.014			.830
.871	-.072	-.079	-.084	-.093	-.099	-.106	-.096	-.077	-.075	-.075	-.075	-.075			.871
.954	-.036	-.045	-.048	-.058	-.063	-.075	-.086	-.055	-.055	-.055	-.055	-.055			.954

TABLE VII.- WING SECTION DATA

α , deg	$\frac{y}{b/2} = 0.12$						$\frac{y}{b/2} = 0.25$						$\frac{y}{b/2} = 0.40$											
	c_n			c_m			$\Delta\alpha$, deg			c_n			c_m			$\Delta\alpha$, deg			c_n			c_m		
	0.5 atm	1.0 atm	0.5 atm	1.0 atm	0.5 atm	1.0 atm	0.5 atm	1.0 atm	0.5 atm	1.0 atm	0.5 atm	1.0 atm	0.5 atm	1.0 atm	0.5 atm	1.0 atm	0.5 atm	1.0 atm	0.5 atm	1.0 atm	0.5 atm	1.0 atm	0.5 atm	1.0 atm
$M = 0.800$																								
-4	-0.1798	-0.1822	-0.0030	-0.0030	0.02	0.03	-0.1764	-0.1700	-0.0215	-0.0226	0.03	0.06	-0.2194	-0.2223	-0.0293	-0.0289								
-2	-0.0643	-0.0712	-0.0154	-0.0131	0	0	-0.0558	-0.0544	-0.0259	-0.0259	0	0.01	-0.0706	-0.0686	-0.0287	-0.0222								
0	.0472	.0436	-.0249	-.0240	-.02	-.03	.0747	.0718	-.0329	-.0322	-.04	-.08	.0788	.0741	-.0345	-.0333								
2	.1508	.1466	-.0562	-.0551	-.03	-.06	.1899	.1886	-.0405	-.0396	-.08	-.13	.2193	.2064	-.0471	-.0386								
4	.2571	.2602	-.0473	-.0472	-.05	-.09	.3105	.3126	-.0458	-.0473	-.11	-.20	.3496	.3465	-.0421	-.0427								
8	.4834	-----	-.0701	-----	-.07	-----	.5548	-----	-.0582	-----	-.15	-----	.6207	-----	-.0447	-----								
12	.7088	-----	-.0877	-----	-.08	-----	.8099	-----	-.0696	-----	-.18	-----	1.0350	-----	-.1403	-----								
$M = 0.900$																								
-4	-0.1552	-0.1551	-0.0010	-0.0010	0.02	0.04	-0.1943	-0.1844	-0.0187	-0.0231	0.04	0.07	-0.2469	-0.2477	-0.0212	-0.0271								
-2	-0.0780	-0.0730	-.0136	-.0139	0	0	-.0722	-.0726	-.0267	-.0271	0	0.01	-.0890	-.0790	-0.0319	-0.0318								
0	.0497	.0520	-.0292	-.0297	-.02	-.04	.0766	.0722	-.0365	-.0341	-.06	-.10	.0895	.0897	-.0395	-.0399								
2	.1604	.1633	-.0463	-.0448	-.04	-.07	.1940	.2059	-.0487	-.0487	-.09	-.17	.2250	.2266	-.0470	-.0456								
4	.2124	.2292	-.0664	-.0661	-.06	-.12	.3259	.3252	-.0683	-.0661	-.14	-.27	.4225	.3969	-.0570	-.0568								
8	.5217	-----	-.1034	-----	-.09	-----	.6097	-----	-.0893	-----	-.20	-----	.6907	-----	-.0676	-----								
12	.7418	-----	-.1250	-----	-.09	-----	.8487	-----	-.1048	-----	-.22	-----	1.0213	-----	-.1629	-----								
$M = 0.940$																								
-4	-0.2167	-0.2162	0.0111	0.0111	0.02	0.05	-0.2231	-0.2181	-0.0062	-0.0076	0.05	0.09	-0.2736	-0.2763	-0.0090	-0.0215								
-2	-0.0744	-0.073	-.0137	-.0134	0	0	-.0675	-.0639	-.0273	-.0271	0	0.01	-.0808	-.0817	-.0346	-.0334								
0	.0635	.0573	-.0371	-.0359	-.03	-.05	.0965	.0893	-.0467	-.0454	-.07	-.11	.1054	.0946	-.0475	-.0450								
2	.1908	.1893	-.0670	-.0661	-.05	-.09	.2296	.2235	-.0672	-.0653	-.12	-.20	.2612	.2566	-.0653	-.0645								
4	.3317	.3084	-.0904	-.0888	-.08	-.14	.3728	.3673	-.0877	-.0856	-.18	-.33	.4280	.4155	-.0829	-.0798								
8	.5418	-----	-.1292	-----	-.10	-----	.6145	-----	-.1134	-----	-.22	-----	.6892	-----	-.0995	-----								
12	.7660	-----	-.1503	-----	-.11	-----	.8770	-----	-.1287	-----	-.24	-----	1.0593	-----	-.1717	-----								
$M = 0.980$																								
-4	-0.2219	-0.2205	0.0223	0.0224	0.03	0.05	-0.2272	-0.2192	0.0058	-0.0029	0.07	0.13	-0.2750	-0.2752	0.0019	-0.0107								
-2	-0.0744	-0.073	-.0137	-.0134	0	0	-.0921	-.0741	-.0179	-.0206	0	0	-.1127	-.0967	-.0247	-.0318								
0	.0531	.052	-.0280	-.0277	-.03	-.05	.0649	.0720	-.0442	-.0444	-.09	-.13	.0772	.0803	-.041	-.0537								
2	.1478	.1498	-.0521	-.0517	-.06	-.11	.1946	.2075	-.0668	-.0694	-.16	-.26	.2317	.2308	-.0731	-.0727								
4	.2772	.2762	-.0606	-.074	-.09	-.16	.3482	.3475	-.0919	-.0915	-.25	-.40	.4052	.3939	-.0966	-.0928								
8	.5203	-----	-.1232	-----	-.14	-----	.6157	-----	-.1258	-----	-.34	-----	.7138	-----	-.1212	-----								
12	.7468	-----	-.1597	-----	-.14	-----	.8769	-----	-.1586	-----	-.34	-----	.9566	-----	-.1446	-----								
$M = 1.030$																								
-4	-0.1997	-0.2148	0.0140	0.0311	0.03	0.07	-0.1997	-0.2146	0.0018	0.0050	0.05	0.14	-0.2358	-0.2729	-0.0009	-0.0053								
-2	-0.0779	-0.0889	-.0005	-.0028	-.01	-.02	-.0321	-.0327	-.0124	-.0147	-.02	-.02	.0716	.0696	-.0210	-.0283								
0	.0324	.0310	-.0281	-.0283	-.03	-.05	.0635	.0646	-.0346	-.0360	-.07	-.12	.0581	.0644	-.0491	-.0495								
2	.1342	.1424	-.0473	-.0490	-.05	-.11	.1820	.1950	-.0622	-.0643	-.14	-.26	.2124	.2179	-.0690	-.0692								
4	.2492	.2544	-.0716	-.0705	-.08	-.16	.3124	.3234	-.0839	-.0843	-.20	-.38	.5666	.5667	-.0913	-.0875								
8	.4423	-----	-.1190	-----	-.13	-----	.5852	-----	-.1229	-----	-.32	-----	.6751	-----	-.1200	-----								
12	.7350	-----	-.1572	-----	-.14	-----	.8727	-----	-.1605	-----	-.34	-----	.9619	-----	-.1455	-----								
$M = 1.125$																								
-4	-0.1964	-0.1922	0.0189	0.0180	0.04	0.07	-0.2012	-0.1968	0.0076	0.0053	0.07	0.14	-0.2362	-0.2413	0.0002	-0.0005								
-2	-0.0747	-.063	-.0013	-.0032	-.01	-.02	-.0744	-.0772	-.0124	-.0147	-.02	-.02	.0581	.0644	-.0491	-.0452								
0	.0115	.0280	-.0237	-.0231	-.02	-.04	.0464	.0454	-.0346	-.0360	-.07	-.12	.1922	.2025	-.0681	-.0690								
2	.1182	.1280	-.0431	-.0449	-.05	-.10	.2841	.2958	-.0752	-.0773	-.19	-.37	.3449	.3453	-.0897	-.0901								
4	.2900	.2934	-.0651	-.0642	-.08	-.12	.5479	-----	-.1184	-----	-.32	-----	.6436	-----	-.1236	-----								
8	.4559	-----	-.1046	-----	-.13	-----	.8032	-----	-.1595	-----	-.37	-----	.9260	-----	-.1534	-----								
12	.6889	-----	-.1508	-----	-.16	-----	.7162	.7546	-.1481	-.1488	-.38	-.76	.8178	.8650	-.1567	-.1614								
$M = 1.200$																								
-4	-0.1815	-0.1793	0.0170	0.0171	0.03	0.07	-0.1819	-0.1808	0.0041	0.0038	0.06	0.14	-0.2122	-0.2117	-0.0043	-0.0065								
-2	-0.1070	-0.0649	.0051	-.0005	.02	.02	-.1085	-.0816	-.0078	-.0130	.03	.03	-.1275	-.0960	-.0196	-.0254								
0	.0118	.0179	-.0196	-.0197	-.02																			

TABLE VII.- WING SECTION DATA - Concluded

α , deg	$\frac{y}{b/2} = 0.60$						$\frac{y}{b/2} = 0.80$						$\frac{y}{b/2} = 0.95$						$\frac{y}{b/2} = 1.00$					
	$\Delta\alpha$, deg		c_n		c_m		$\Delta\alpha$, deg		c_n		c_m		$\Delta\alpha$, deg		c_n		c_m		$\Delta\alpha$, deg		c_n		c_m	
	0.5 atm	1.0 atm	0.5 atm	1.0 atm	0.5 atm	1.0 atm	0.5 atm	1.0 atm	0.5 atm	1.0 atm	0.5 atm	1.0 atm	0.5 atm	1.0 atm	0.5 atm	1.0 atm	0.5 atm	1.0 atm	0.5 atm	1.0 atm	0.5 atm	1.0 atm	0.5 atm	1.0 atm
$M = 0.800$																								
-4	0.09	0.18	-0.2449	-0.2146	-0.0167	-0.0176	0.14	0.35	-0.2444	-0.2460	0.0202	0.0192	0.14	0.39	-0.0888	-0.1544	-0.0202	-0.0061	0.12	0.37				
-2	-0.02	-0.02	-0.0944	-0.0626	-0.0392	-0.0390	-0.07	-0.16	-0.0842	-0.0952	-0.0227	-0.0349	-0.15	-0.34	-0.0294	-0.0396	-0.0589	-0.0620	-0.20	-0.44				
0	-0.13	-0.21	.1150	.1049	-0.0422	-0.0411	-0.30	-0.52	.1456	.1168	-0.0500	-0.0444	-0.43	-0.76	.1568	.1284	-0.0564	-0.0583	-0.47	-0.83				
2	-0.20	-0.37	.2073	.2937	-0.0458	-0.0448	-0.43	-0.79	.5059	.2844	-0.0486	-0.0464	-0.57	-1.07	.2974	.2655	-0.0466	-0.0535	-0.58	-1.11				
4	-0.29	-0.56	.4359	.4706	-0.0465	-0.0465	-1.13	-0.209	.4868	.0513	-0.0477	-0.0477	-0.83	-1.46	.4821	.4508	-0.0768	-0.0447	-0.84	-1.14				
8	-0.59	-----	.8816	-----	-0.1242	-----	-0.79	-----	.6219	-----	-0.1076	-----	-0.38	-----	.5823	-----	-0.0398	-----	-1.01	-----				
12	-0.42	-----	.8815	-----	-0.1496	-----	-0.82	-----	.6040	-----	-0.1046	-----	-1.02	-----	.3885	-----	-0.0614	-----	-1.05	-----				
$M = 0.900$																								
-4	0.11	0.21	-0.2572	-0.2431	-0.0389	-0.0414	0.19	0.36	-0.5050	-0.2812	0.0356	0.0275	0.17	0.36	-0.0885	-0.1219	-0.0264	-0.0192	0.15	0.32				
-2	-0.01	-0.02	-0.0794	-0.0668	-0.0445	-0.0439	-0.07	-0.19	-0.1065	-0.1031	-0.0179	-0.0351	-0.17	-0.42	-0.0212	-0.0359	-0.0594	-0.0682	-0.22	-0.54				
0	-0.16	-0.27	.1319	.1179	-0.0595	-0.0467	-0.59	-0.66	.1652	.1558	-0.0570	-0.0495	-0.55	-0.97	.1780	.1475	-0.0608	-0.0625	-0.59	-1.05				
2	-0.25	-0.47	.2791	.2781	-0.0511	-0.0497	-0.25	-1.00	.5555	.5162	-0.0514	-0.0514	-0.70	-1.35	.3253	.2969	-0.0467	-0.0564	-0.71	-1.39				
4	-0.38	-0.71	.4859	.4714	-0.0518	-0.0486	-0.76	-1.42	.7079	.5422	-0.0494	-0.0466	-1.05	-1.82	.5393	.5473	-0.0643	-0.0423	-1.06	-1.78				
8	-0.50	-----	.9301	-----	-0.1374	-----	-1.05	-----	.7222	-----	-0.1504	-----	-1.28	-----	.5997	-----	-0.0644	-----	-1.31	-----				
12	-0.53	-----	.8792	-----	-0.1566	-----	-1.04	-----	.6457	-----	-0.1185	-----	-1.50	-----	.4390	-----	-0.0693	-----	-1.34	-----				
$M = 0.940$																								
-4	0.14	0.26	-0.2729	-0.2616	-0.0653	-0.0628	0.25	0.47	-0.3519	-0.3370	0.0513	0.0457	0.25	0.46	-0.1045	-0.1129	-0.0234	-0.0235	0.24	0.43				
-2	-0.01	-0.02	-0.0796	-0.0738	-0.0190	-0.0481	-0.08	-0.18	-0.0843	-0.1021	-0.0248	-0.0248	-0.18	-0.43	-0.0219	-0.0266	-0.0605	-0.0702	-0.24	-0.55				
0	-0.19	-0.30	.1450	.1223	-0.0522	-0.0484	-0.43	-0.72	.1894	.1396	-0.0611	-0.0511	-0.61	-1.05	.1927	.1545	-0.0624	-0.0655	-0.65	-1.14				
2	-0.31	-0.74	.3268	.2756	-0.0534	-0.0570	-0.64	-1.12	.5972	.5454	-0.0546	-0.0511	-0.83	-1.48	.5991	.5526	-0.0411	-0.0503	-0.83	-1.51				
4	-0.48	-0.85	.5850	.5050	-0.0540	-0.0773	-0.97	-1.68	.6404	.5993	-0.0642	-0.0662	-1.22	-2.02	.7051	.6586	-0.0561	-0.0550	-1.19	-1.94				
8	-0.58	-----	.8735	-----	-0.1434	-----	-1.17	-----	.7705	-----	-0.1343	-----	-1.45	-----	.4851	-----	-0.0720	-----	-1.49	-----				
12	-0.60	-----	.8078	-----	-0.1683	-----	-1.20	-----	.7110	-----	-0.1359	-----	-1.51	-----	.5000	-----	-0.0816	-----	-1.55	-----				
$M = 0.980$																								
-4	0.21	0.37	-0.2989	-0.2949	-0.0414	-0.0270	0.40	0.68	-0.4423	-0.4065	0.0802	0.0461	0.44	0.72	-0.1624	-0.1470	-0.0400	-0.0160	0.34	0.85				
-2	-0.01	-0.1140	-0.0882	-0.0504	-0.0458	-0.05	-0.13	-0.1341	-0.1464	-0.0542	-0.0566	-0.0	-0.34	-0.1301	-0.0642	-0.0185	-0.0572	-0.04	-0.47					
0	-0.26	-0.54	.1110	.1106	-0.0866	-0.0714	-0.68	-0.81	.1952	.1277	-0.1212	-0.1243	-0.69	-1.09	.2618	.1444	-0.1129	-0.0415	-1.11	-2.07				
2	-0.42	-0.73	.3570	.5053	-0.1116	-0.0980	-0.96	-1.66	.4188	.5670	-0.1316	-0.1394	-1.33	-2.57	.4412	.4217	-0.1124	-0.1111	-1.41	-2.50				
4	-0.57	-1.10	.5005	.1293	-0.1171	-0.1171	-1.31	-2.47	.6748	.6249	-0.1568	-0.1510	-1.78	-3.39	.7000	.6332	-0.1240	-0.1358	-1.84	-3.54				
8	-0.90	-----	.9150	-----	-0.1558	-----	-1.96	-----	.1207	-----	-0.2306	-----	-2.60	-----	.9263	-----	-0.1719	-----	-2.70	-----				
12	-0.83	-----	1.0734	-----	-0.2020	-----	-1.73	-----	.9889	-----	-0.2000	-----	-2.21	-----	.6979	-----	-0.1240	-----	-2.29	-----				
$M = 1.030$																								
-4	0.15	0.38	-0.2531	-0.2810	-0.0346	-0.0281	0.24	0.70	-0.3187	-0.3559	0.0133	0.0064	0.24	0.80	-0.1760	-0.3287	-0.0251	-0.0151	0.20	0.70				
-2	-0.02	-0.1029	-0.0833	-0.0530	-0.0546	-0.08	-0.24	-0.1547	-0.1590	-0.0453	-0.0669	-0.30	-0.66	-0.1807	-0.1604	-0.1244	-0.1150	-0.44	-1.12					
0	-0.24	-0.43	.1114	.1114	-0.0842	-0.0805	-0.65	-1.17	.1568	.1321	-0.1094	-0.1050	-0.99	-1.83	.2147	.1615	-0.1292	-0.1344	-1.11	-2.07				
2	-0.38	-0.74	.2996	.2929	-0.1071	-0.1020	-0.91	-1.76	.5937	.5438	-0.1178	-0.1239	-1.30	-2.51	.5972	.5445	-0.1249	-0.1249	-1.39	-2.70				
4	-0.52	-1.04	.4874	.4662	-0.1245	-0.1166	-1.23	-2.52	.7547	.6907	-0.1457	-0.1392	-1.67	-3.17	.5991	.5311	-0.1226	-0.1226	-1.74	-3.34				
8	-0.88	-----	.8383	-----	-0.1518	-----	-1.95	-----	1.0470	-----	-0.2291	-----	-2.64	-----	.9666	-----	-0.1920	-----	-2.75	-----				
12	-0.89	-----	1.1465	-----	-0.2230	-----	-1.85	-----	1.0537	-----	-0.2197	-----	-2.55	-----	.6871	-----	-0.1256	-----	-2.44	-----				
$M = 1.200$																								
-4	0.19	0.40	-0.2161	-0.2265	-0.0260	-0.0272	0.36	0.78	-0.3144	-0.3304	0.0164	0.0124	0.48	1.04	-0.3719	-0.3922	0.0171	0.0190	0.45	0.94				
-2	.07	.06	-.1285	-.0886	-.0417	-.0496	.05	.10	-.2071	-.1686	-.0429	-.0532	.05	.40	-.2143	-.1782	-.0660	-.0850	-.15	-.63				
0	-.18	-.32	.0875	.0816	-.0715	-.0699	-.52	-.90	.0714	.0561	-.0846	-.0785	-.85	-.147	.1149	.0719	-.1256	-.1127	-.97	-.170				
2	-.34	-.65	.2371	.2392	-.0941	-.0917	-.84	-.160	.2598	.2475	-.1076	-.1020	-.125	-.25	.3028	.2606	-.1334	-.1322	-.136	-.260				
4	-.49	-.97	.3854	.4041	-.1146	-.1135	-.113	-.22																

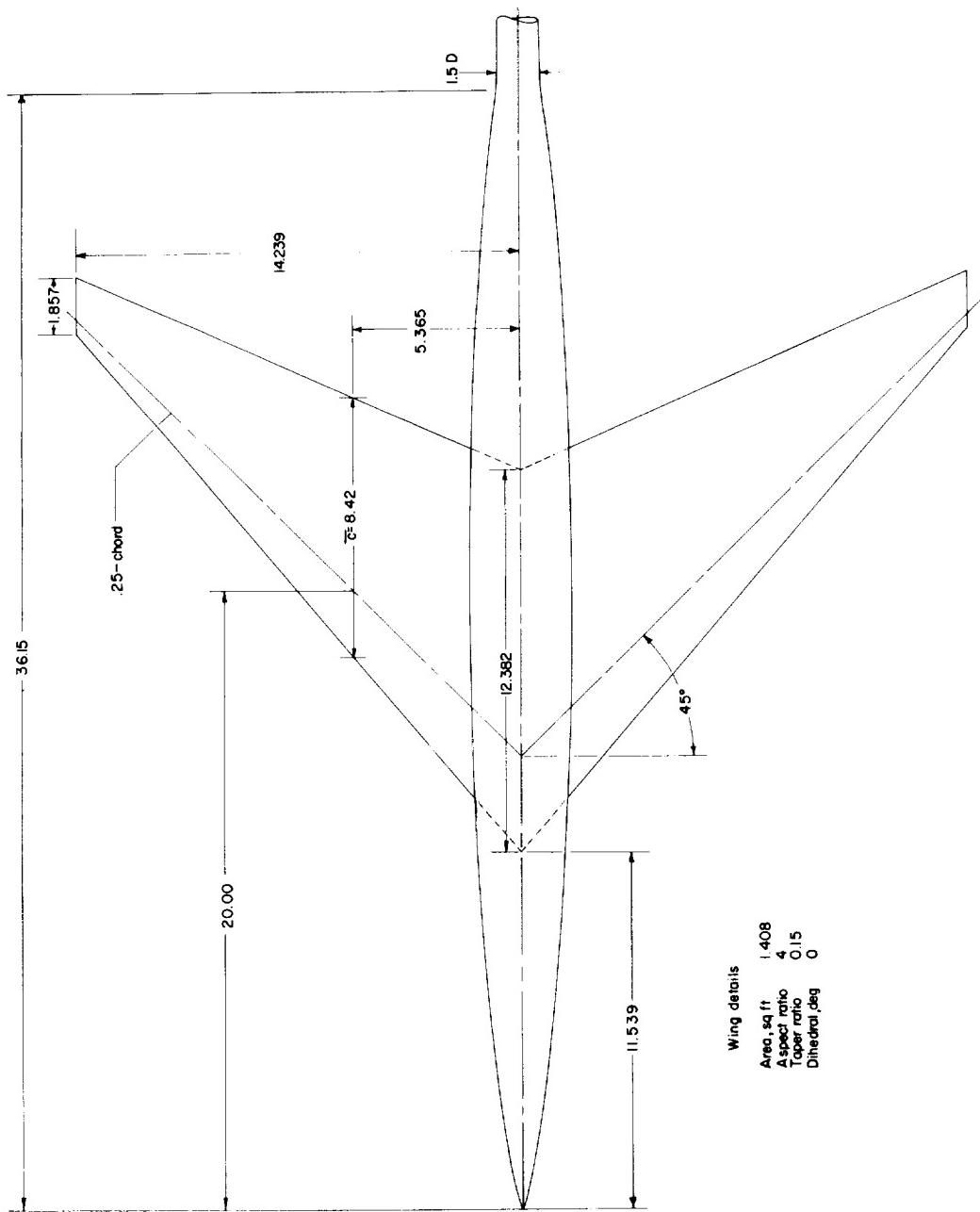


Figure 1.- Details of wing-body configuration. All dimensions in inches unless otherwise noted.

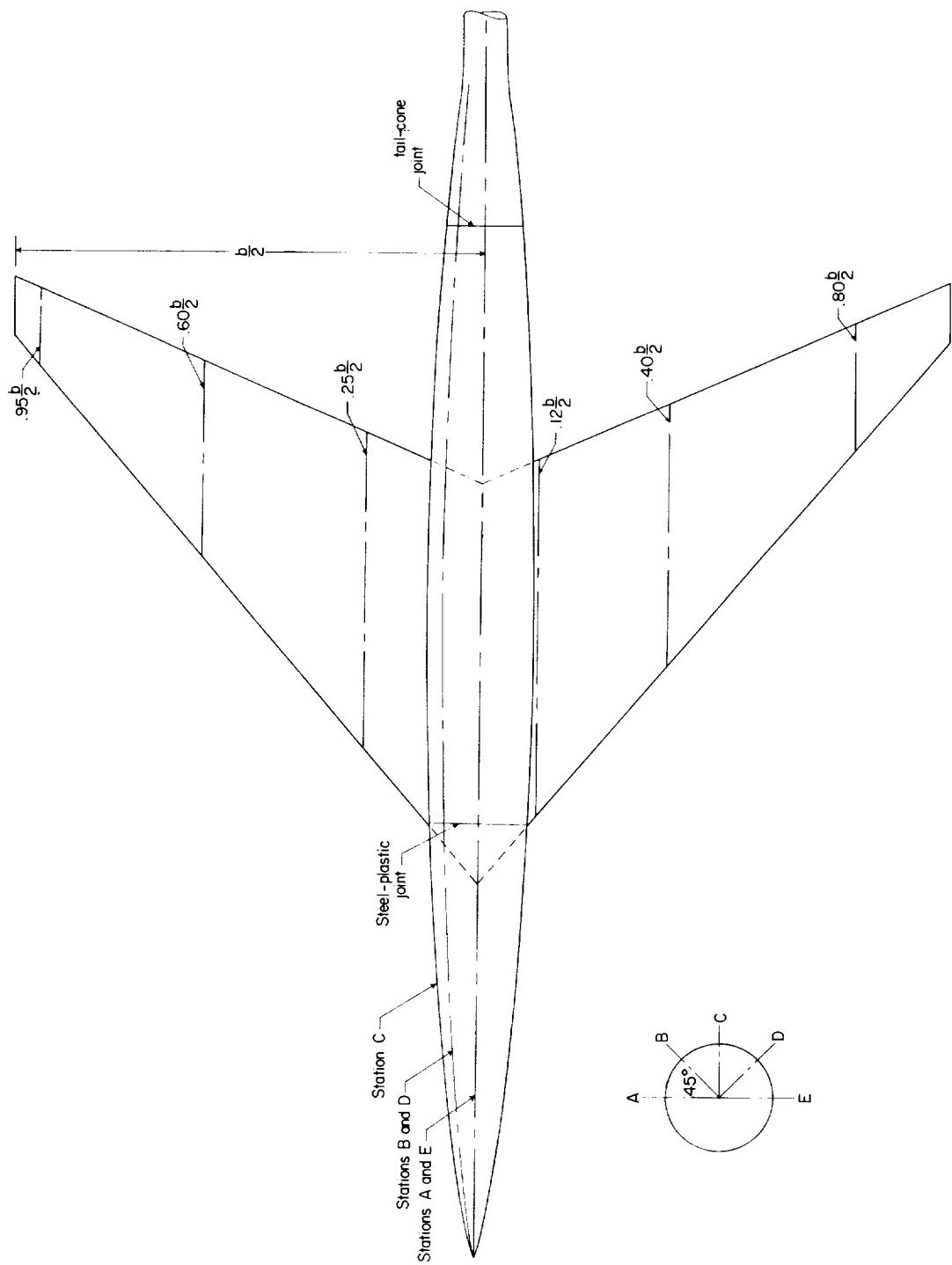


Figure 2.- Location of pressure orifices on the wing and body.

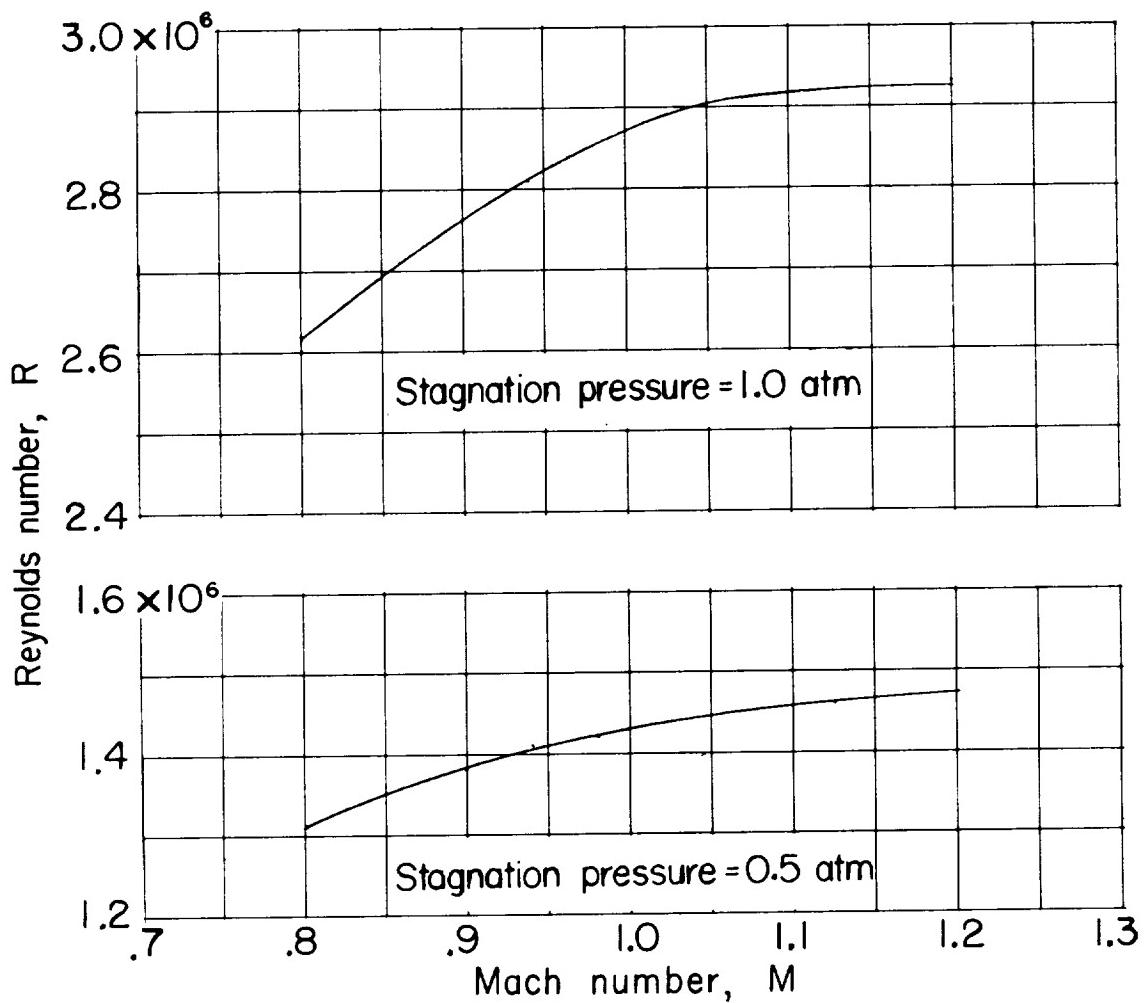
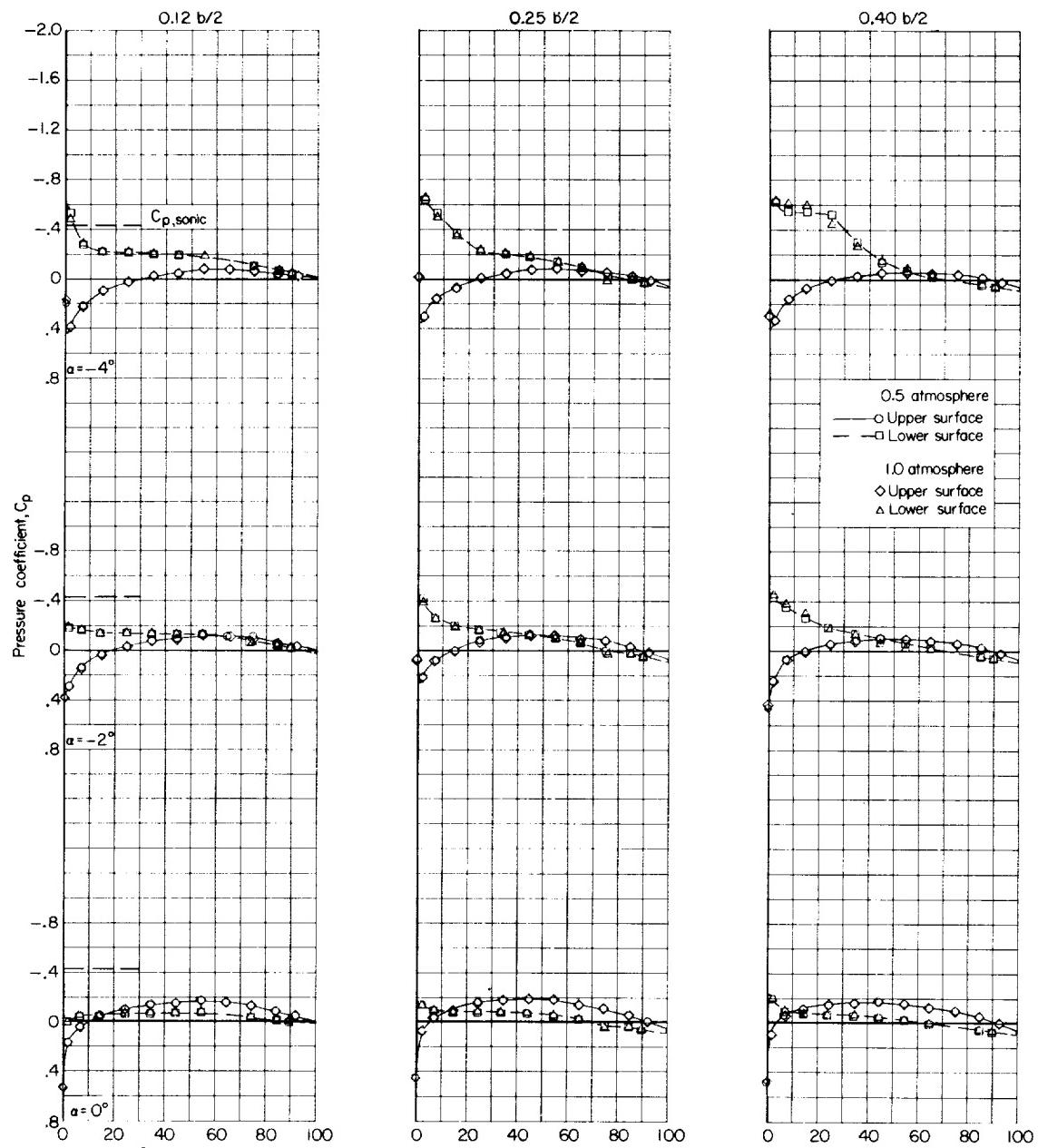
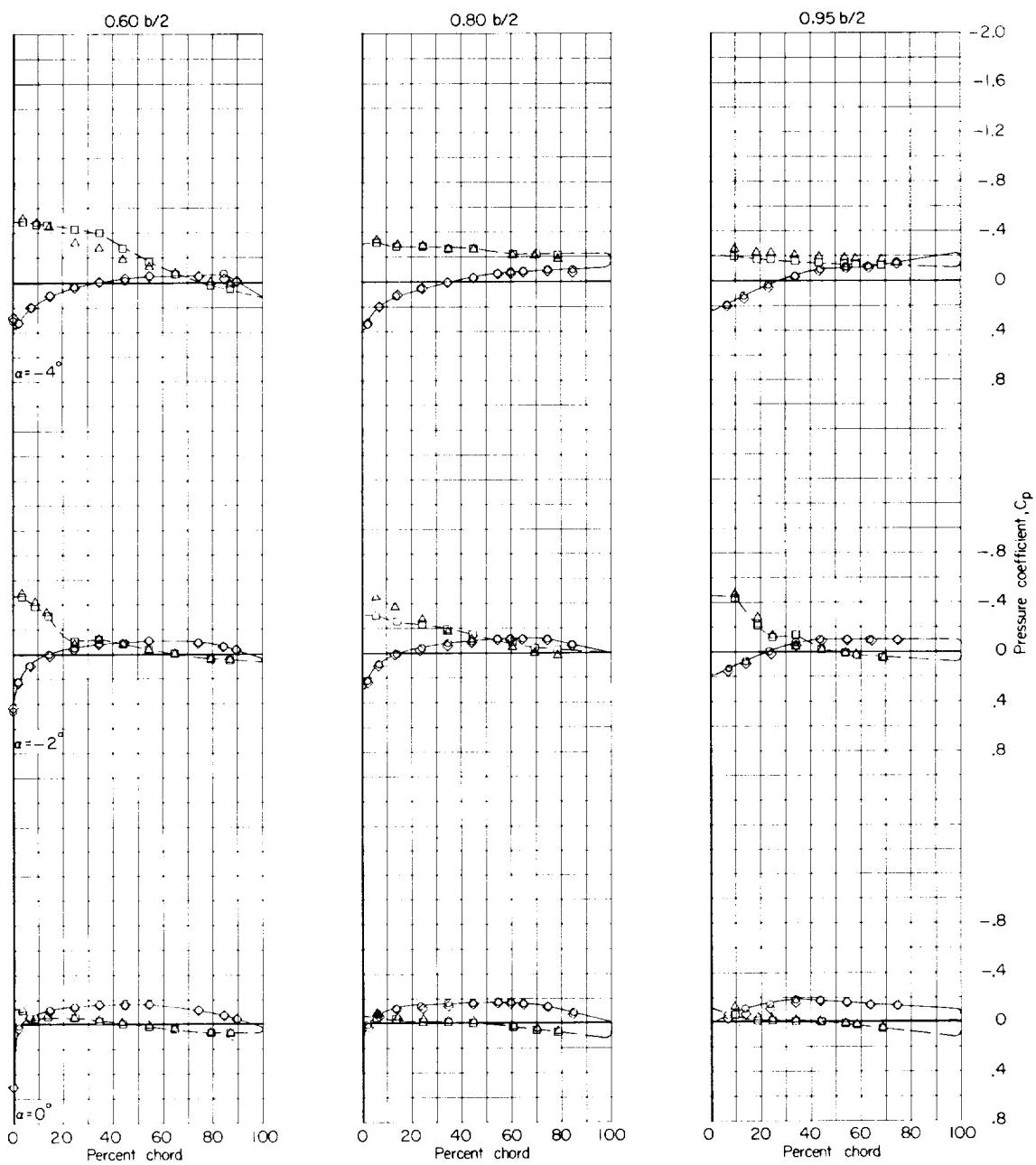


Figure 3.- Variation with Mach number of average Reynolds number based on wing mean aerodynamic chord.



(a) $M = 0.800; \alpha = -4^\circ, -2^\circ, \text{ and } 0^\circ$.

Figure 4.- Pressure measurements on wing in presence of body.



(a) Concluded.

Figure 4.- Continued.

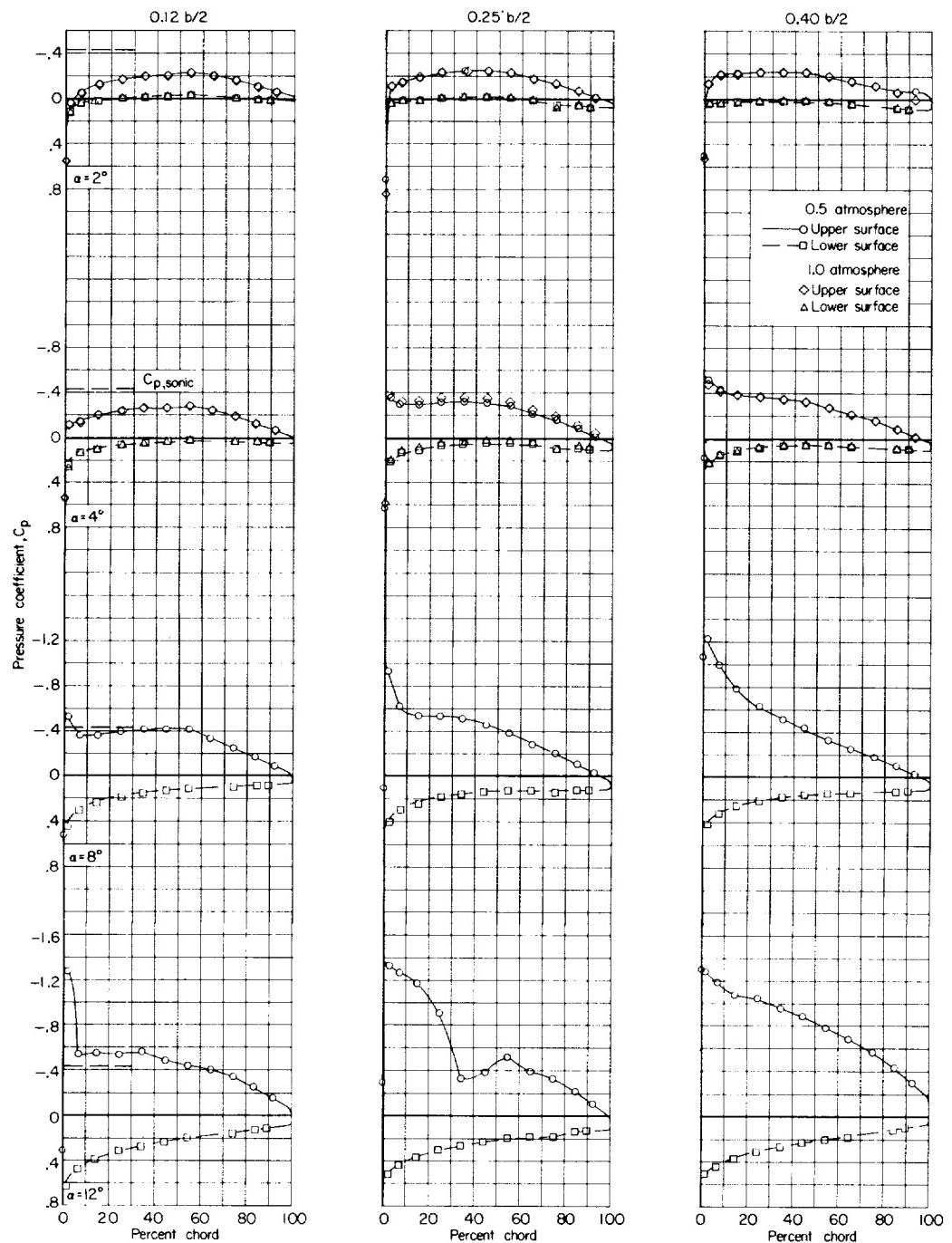
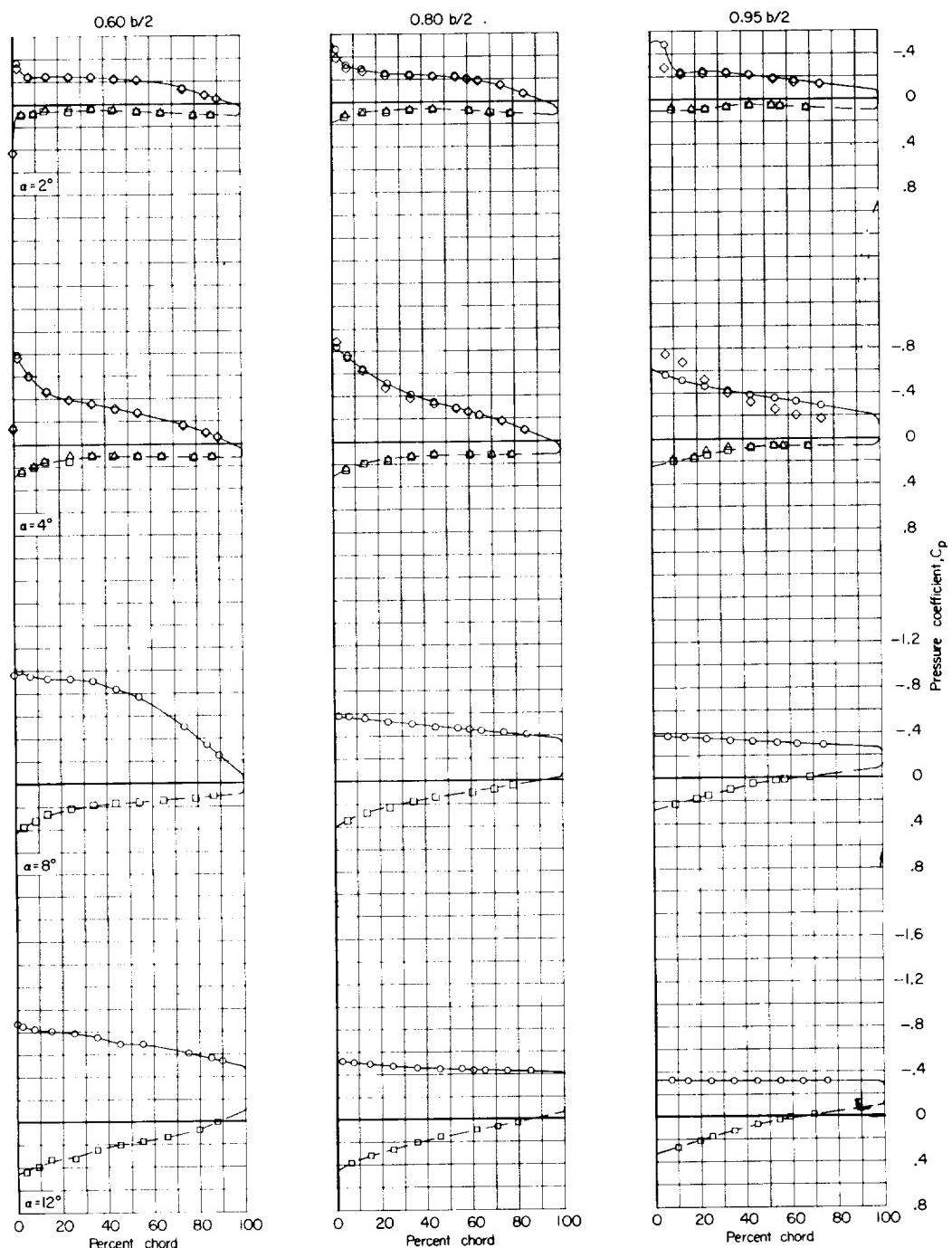
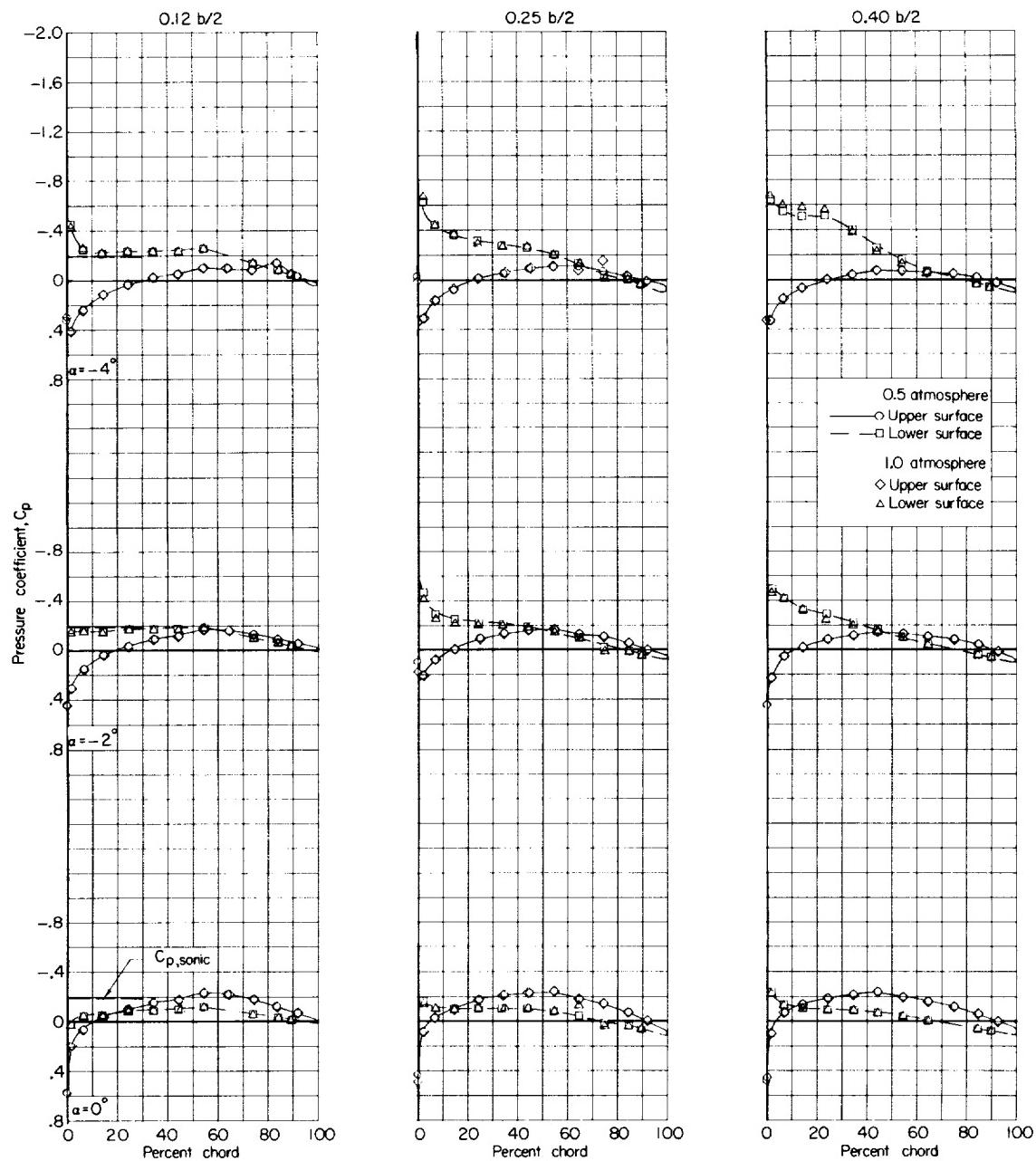
(b) $M = 0.800$; $\alpha = 2^\circ, 4^\circ, 8^\circ$, and 12° .

Figure 4.- Continued.



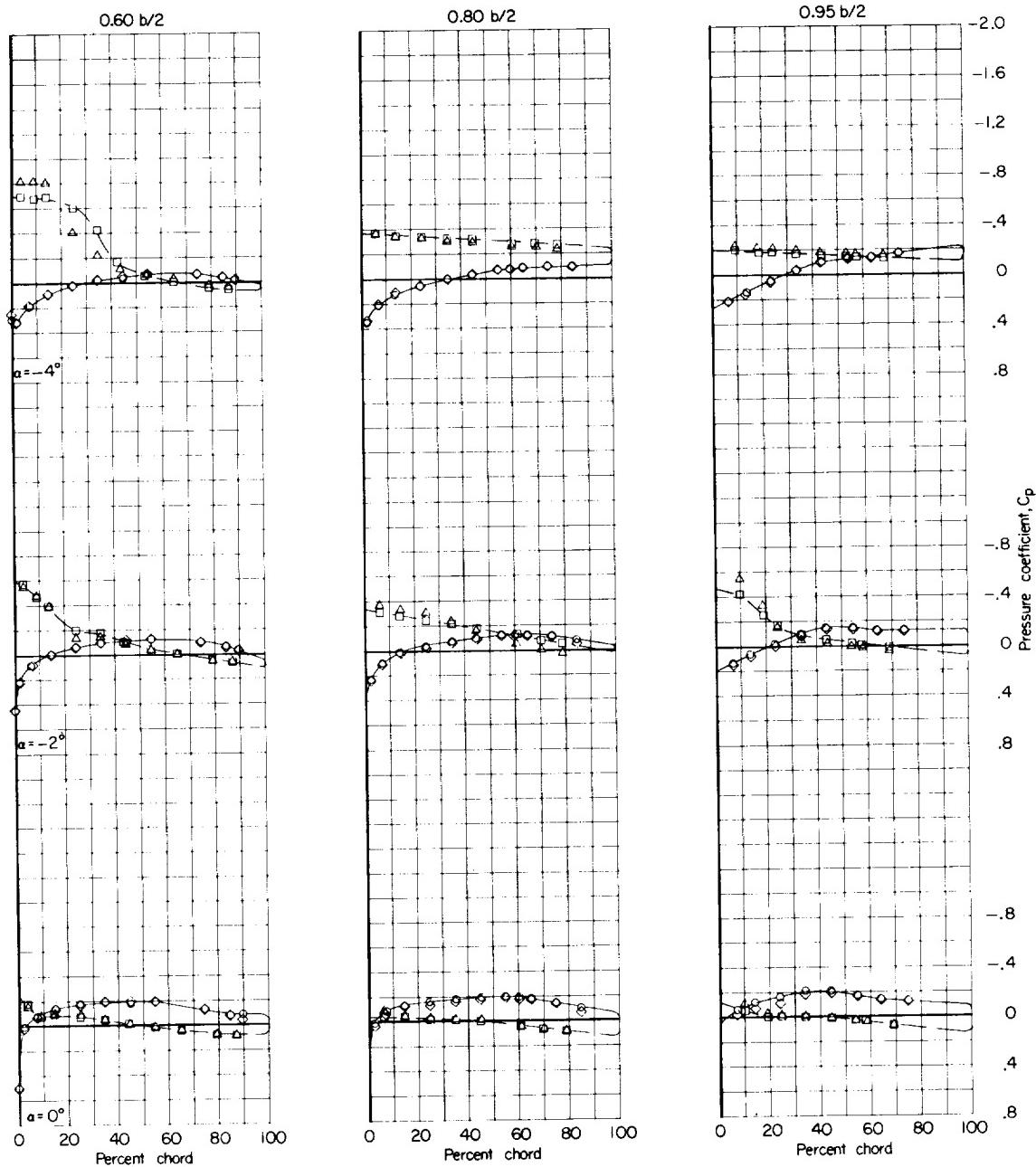
(b) Concluded.

Figure 4.- Continued.



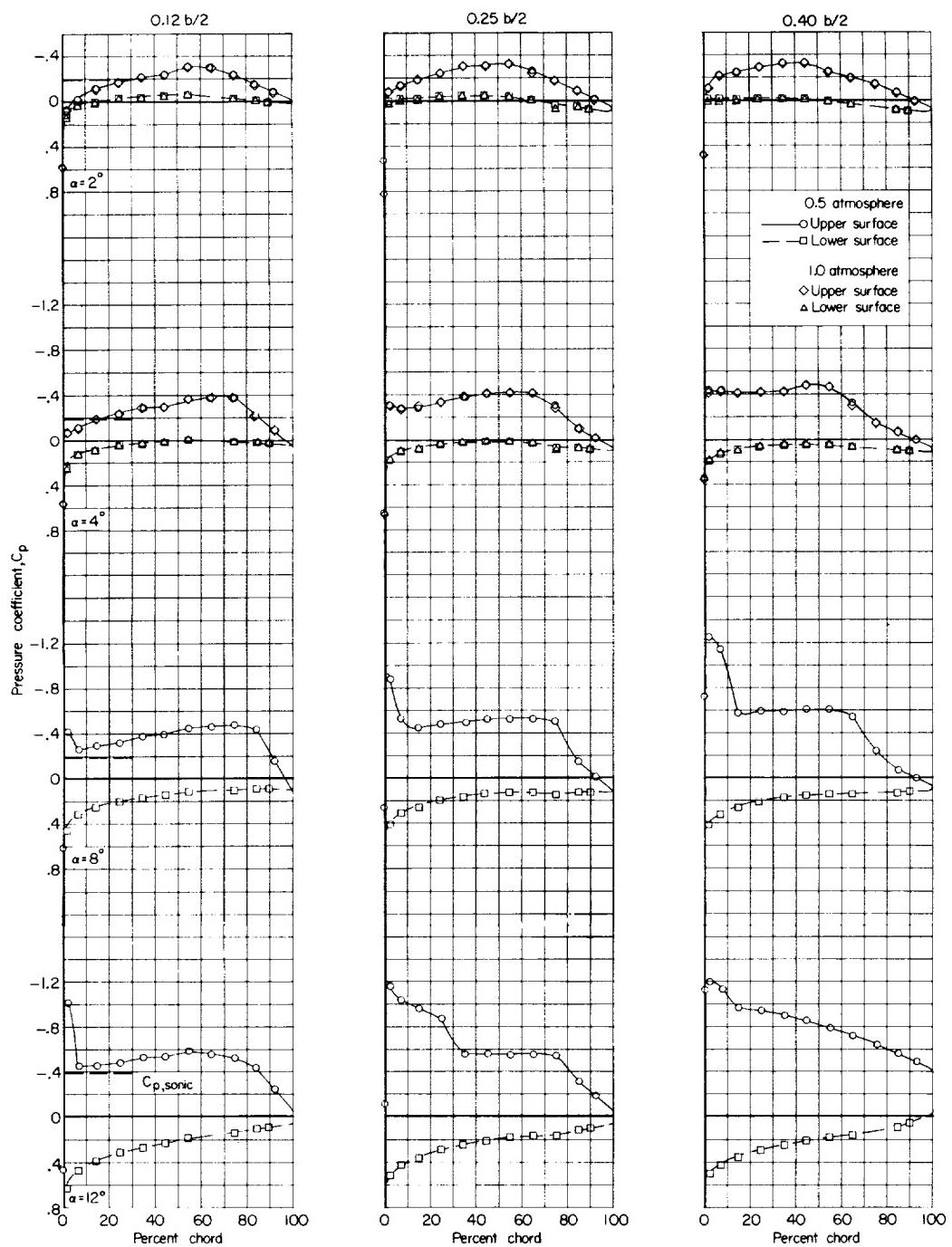
(c) $M = 0.900$; $\alpha = -4^\circ$, -2° , and 0° .

Figure 4.- Continued.



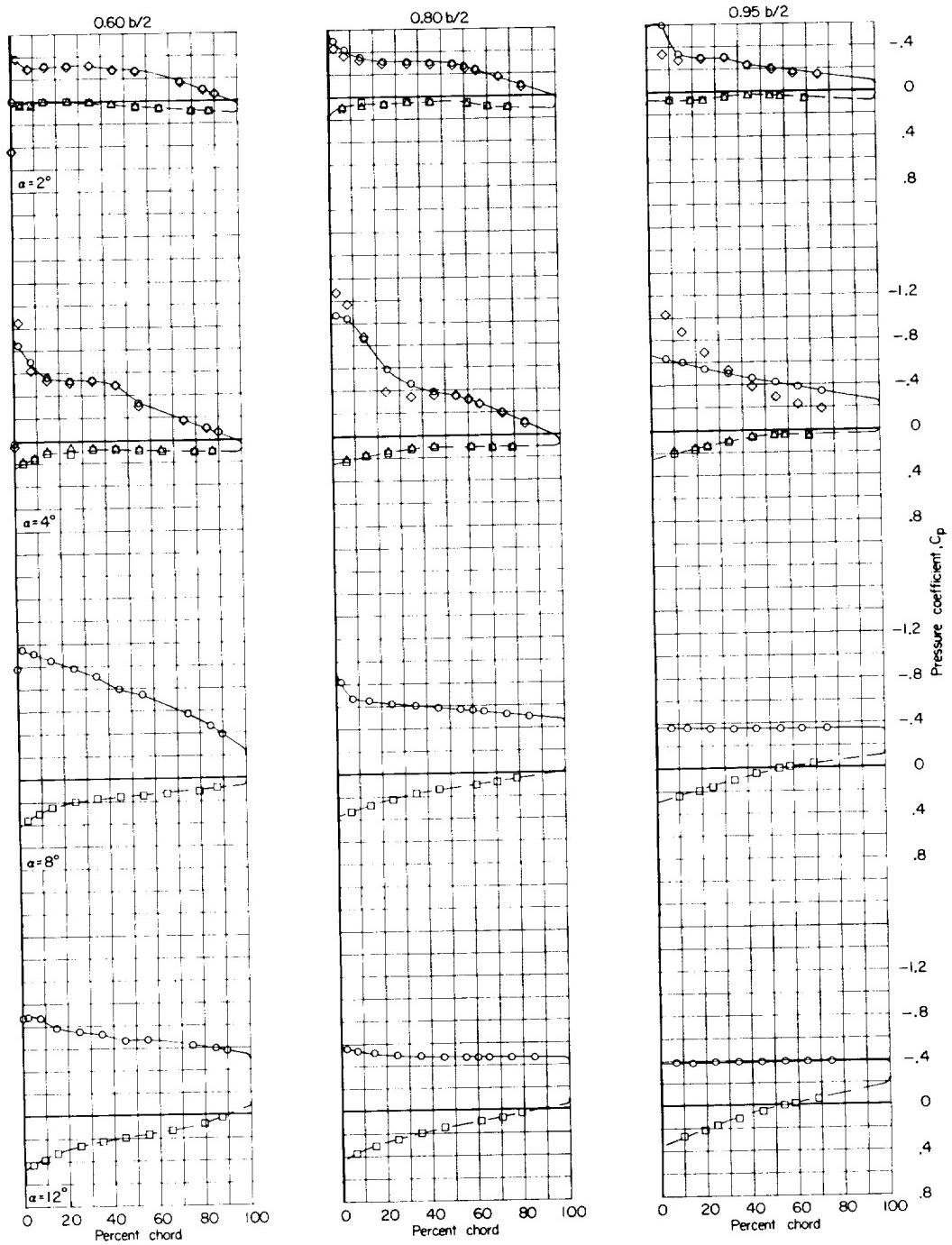
(c) Concluded.

Figure 4.- Continued.



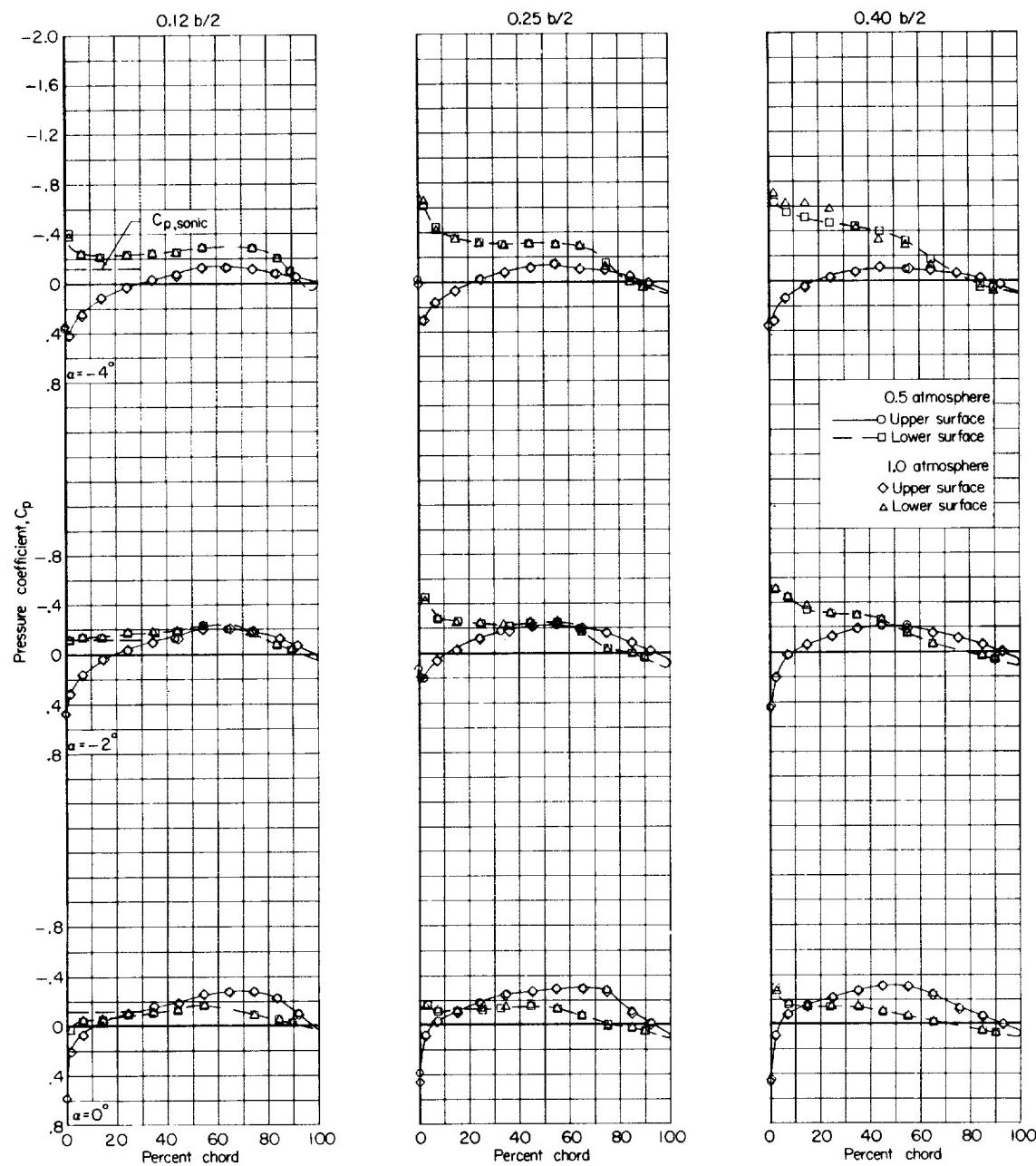
(d) $M = 0.900; \alpha = 2^\circ, 4^\circ, 8^\circ$, and 12° .

Figure 4.- Continued.



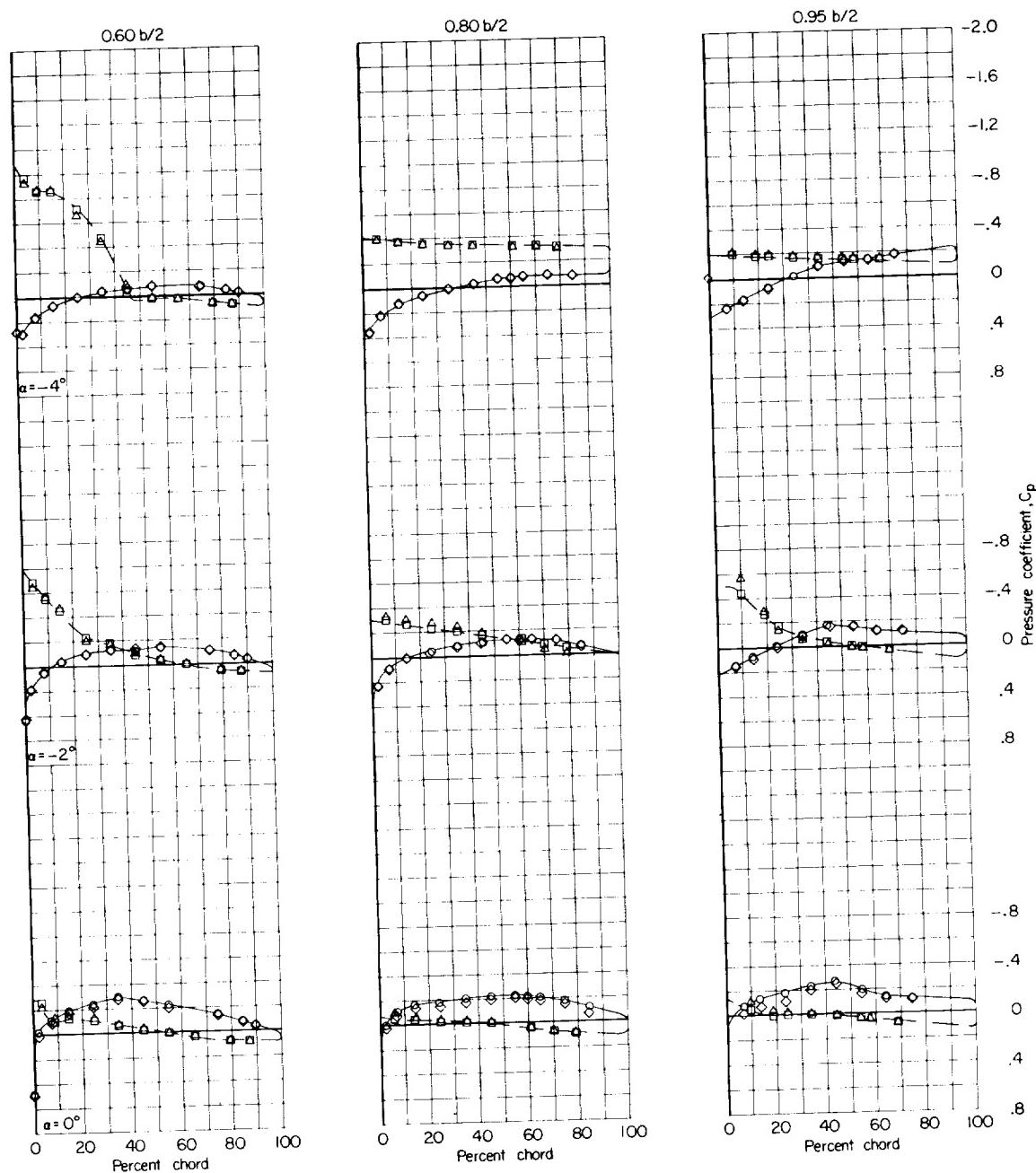
(d) Concluded.

Figure 4.- Continued.



(e) $M = 0.940$; $\alpha = -4^\circ$, -2° , and 0° .

Figure 4.- Continued.



(e) Concluded.

Figure 4.- Continued.

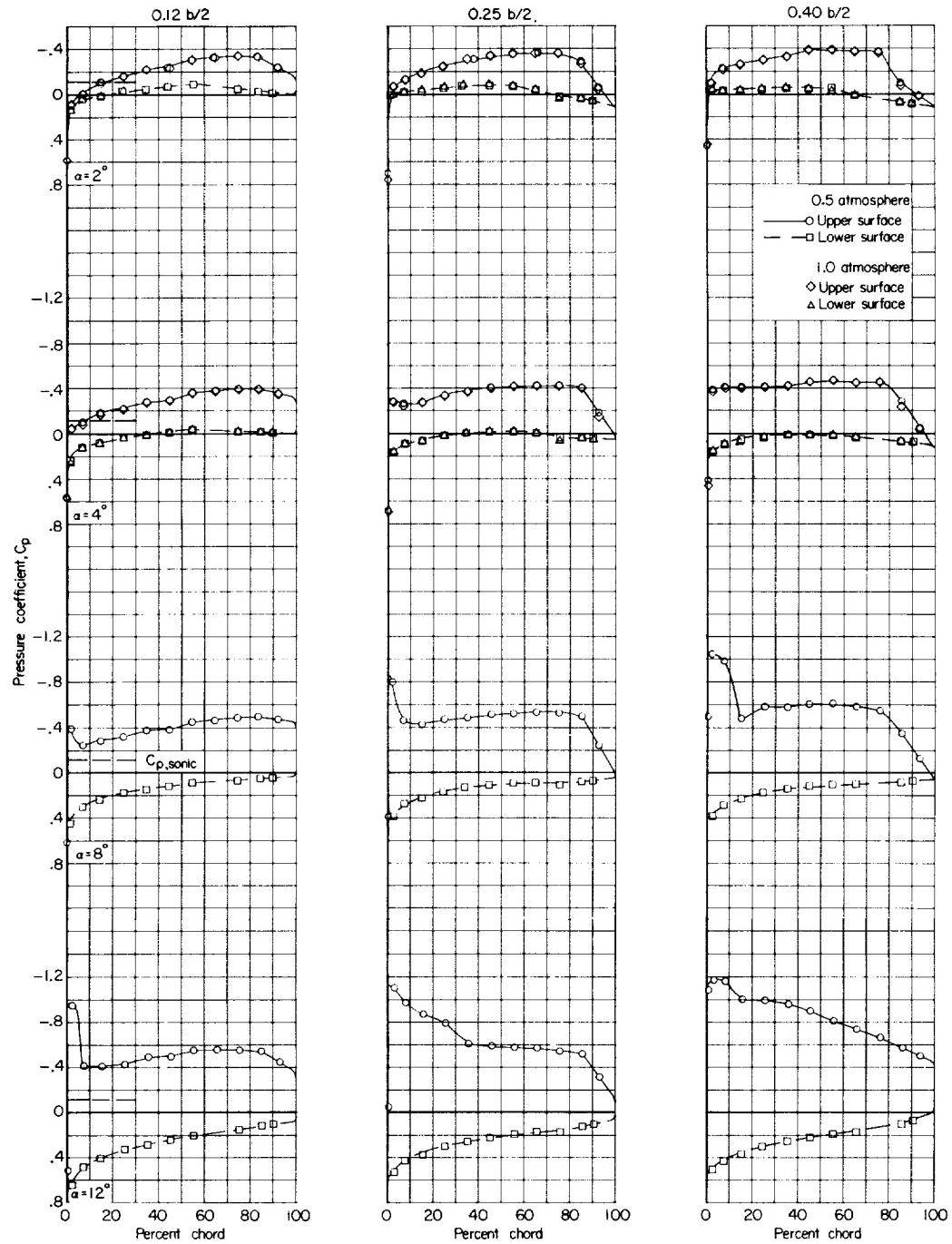
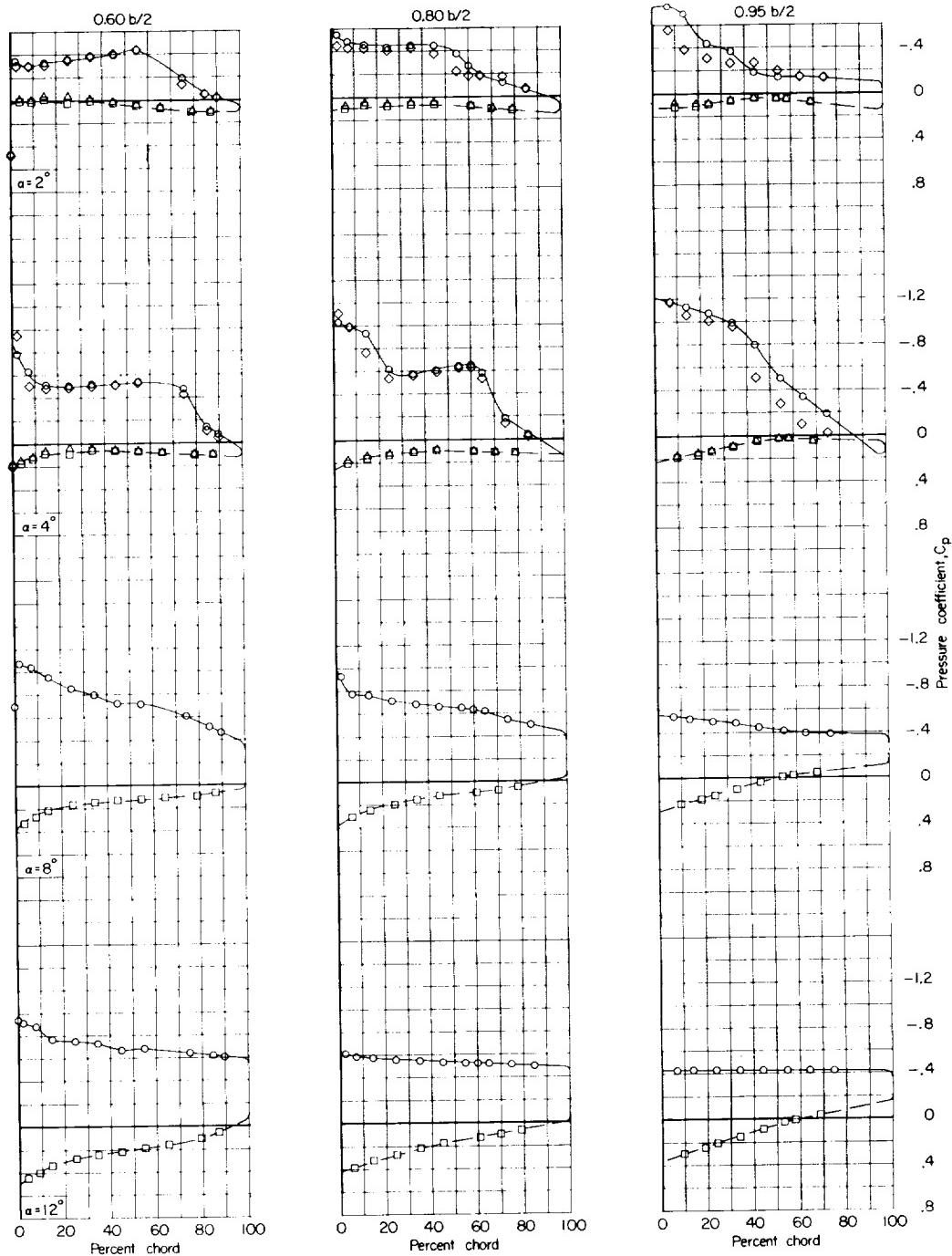
(f) $M = 0.940; \alpha = 2^\circ, 4^\circ, 8^\circ, \text{ and } 12^\circ$.

Figure 4.-- Continued.



(f) Concluded.

Figure 4.- Continued.

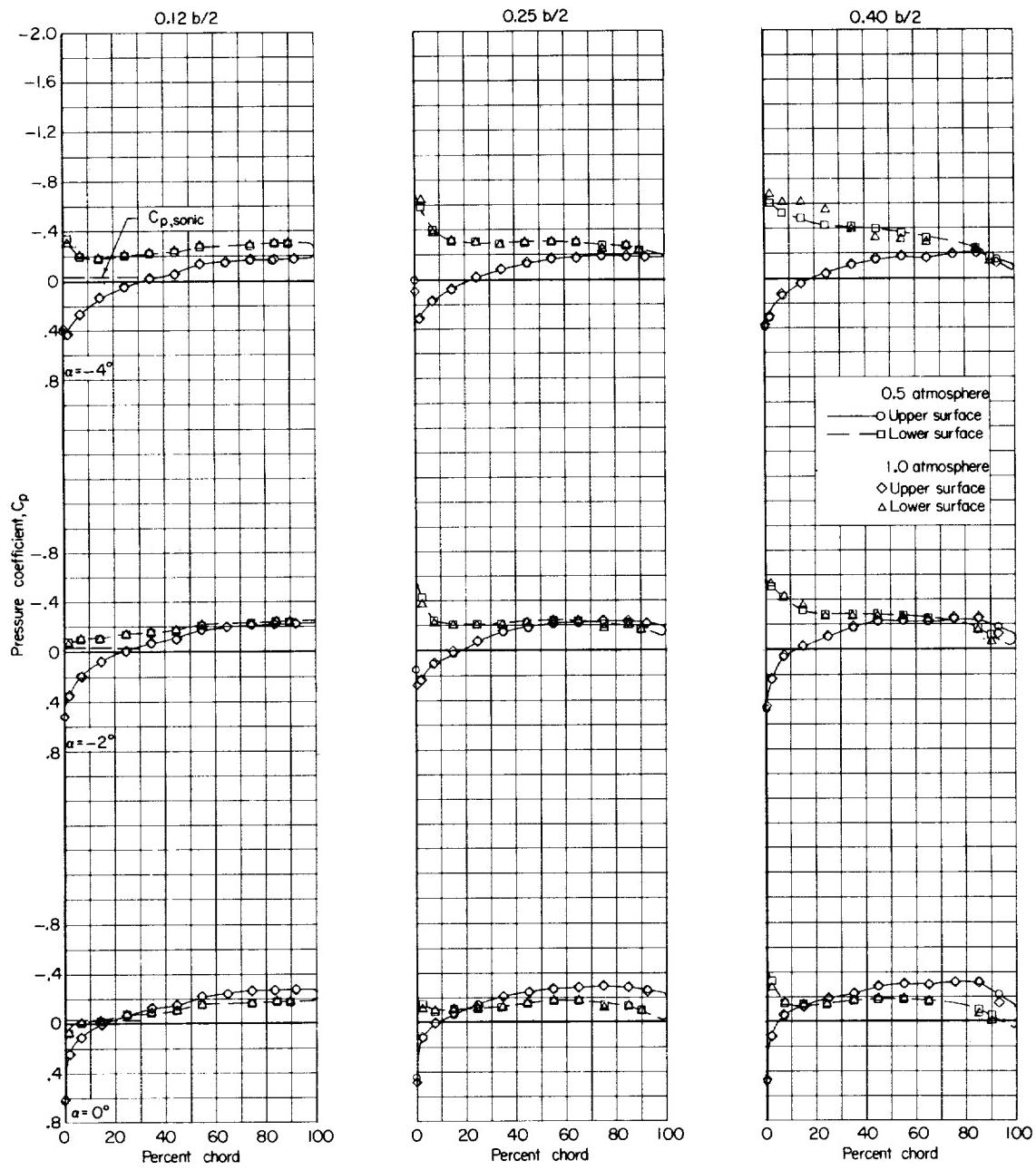
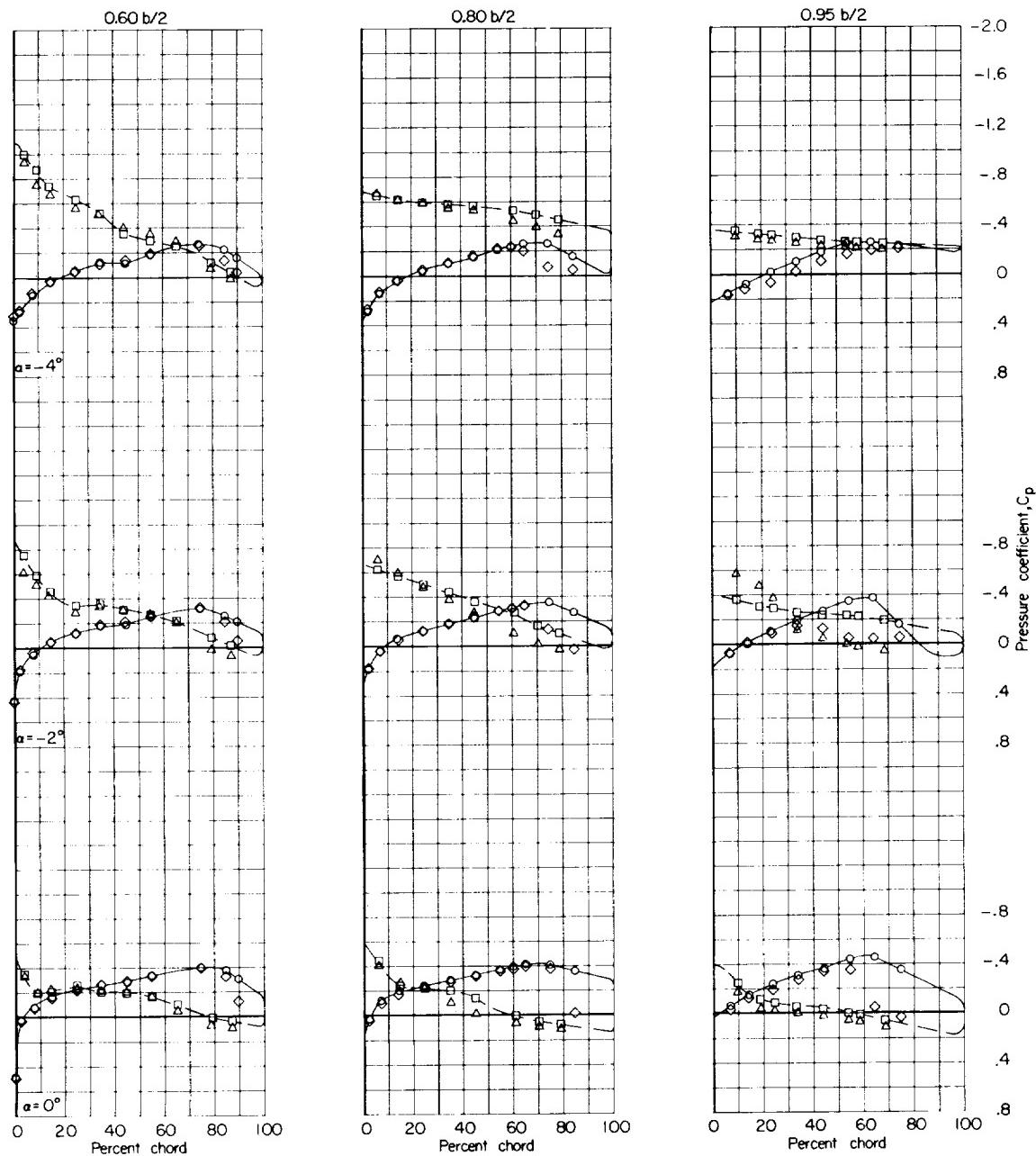
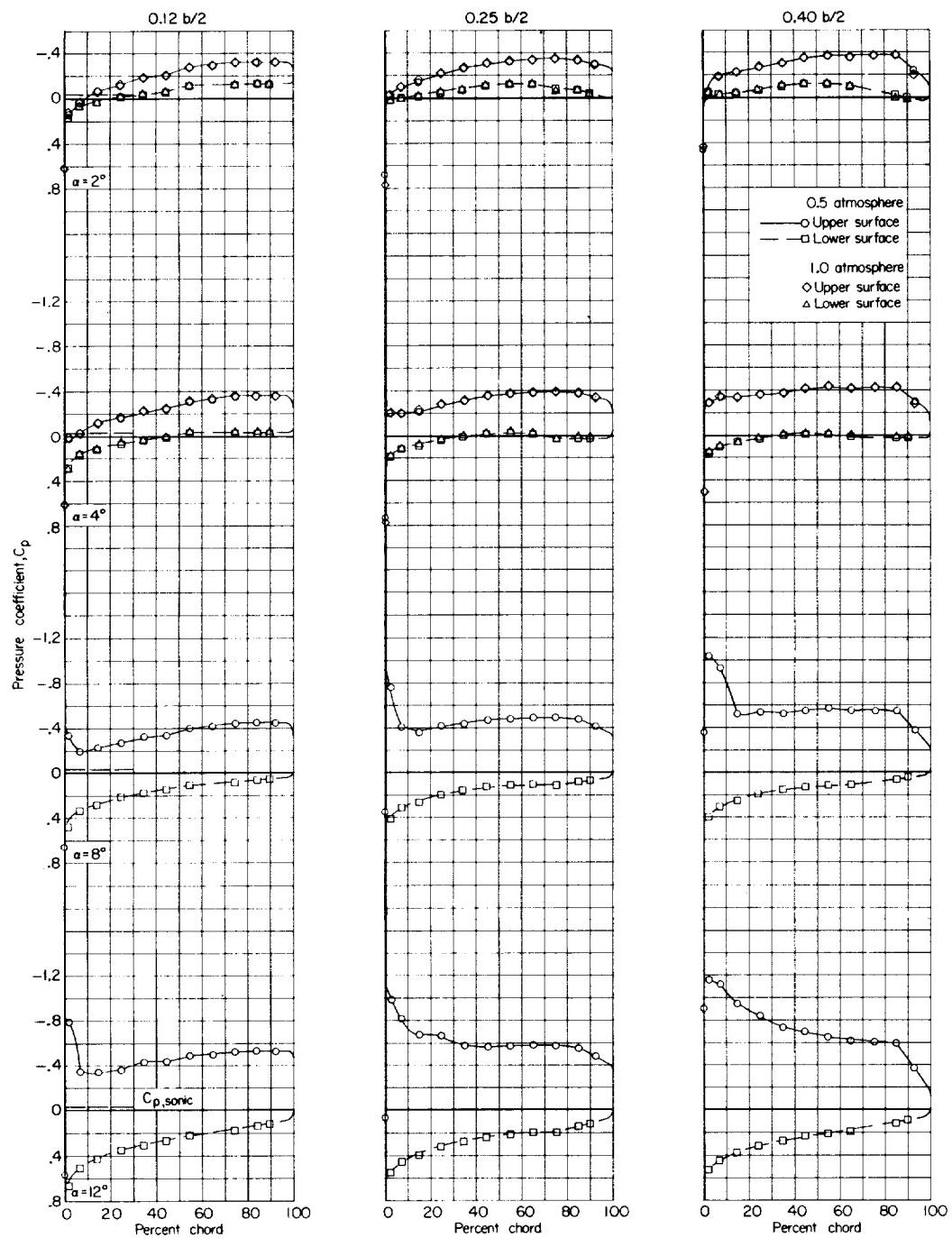
(g) $M = 0.980$; $\alpha = -4^\circ$, -2° , and 0° .

Figure 4.- Continued.



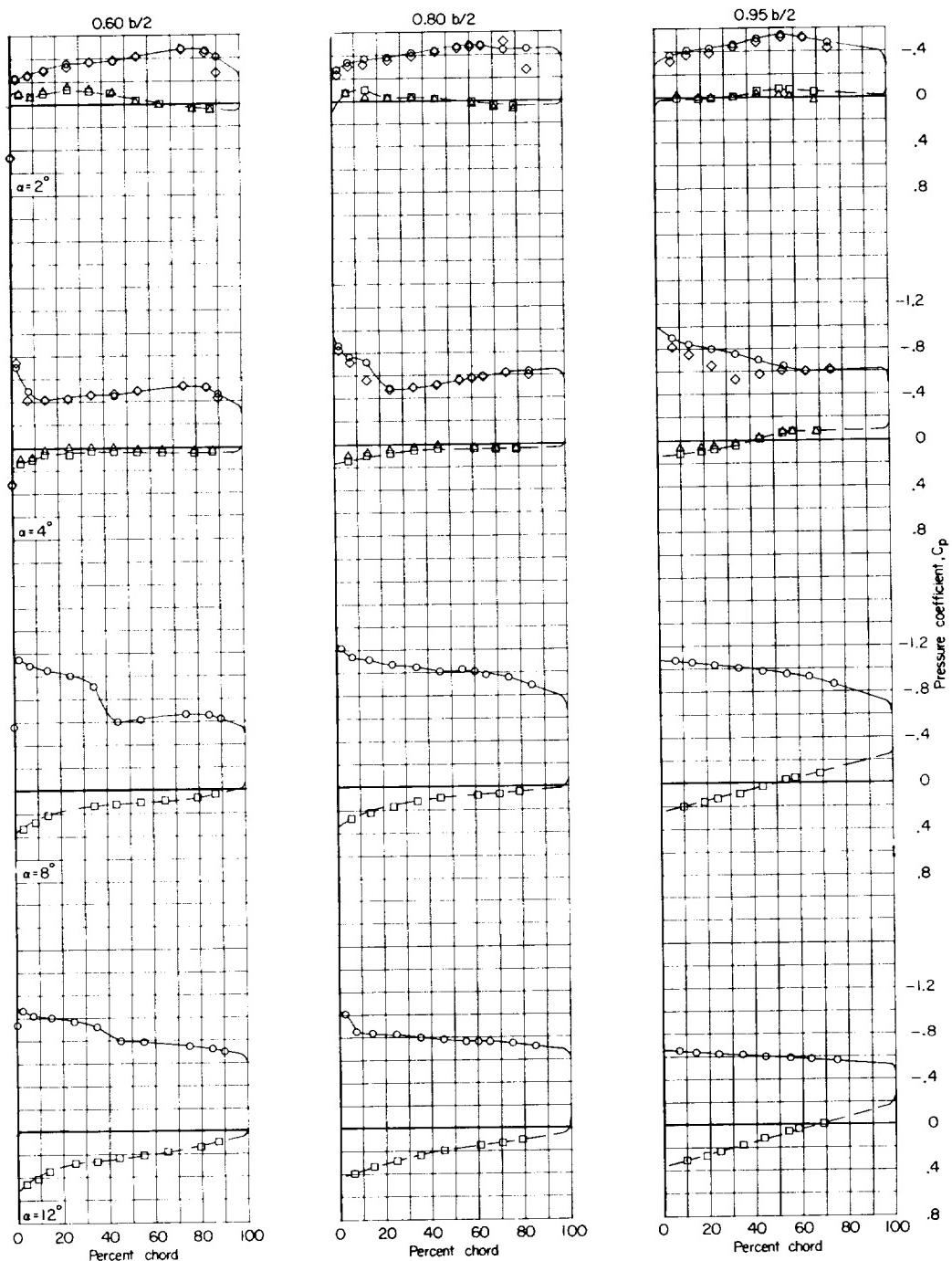
(g) Concluded.

Figure 4.- Continued.



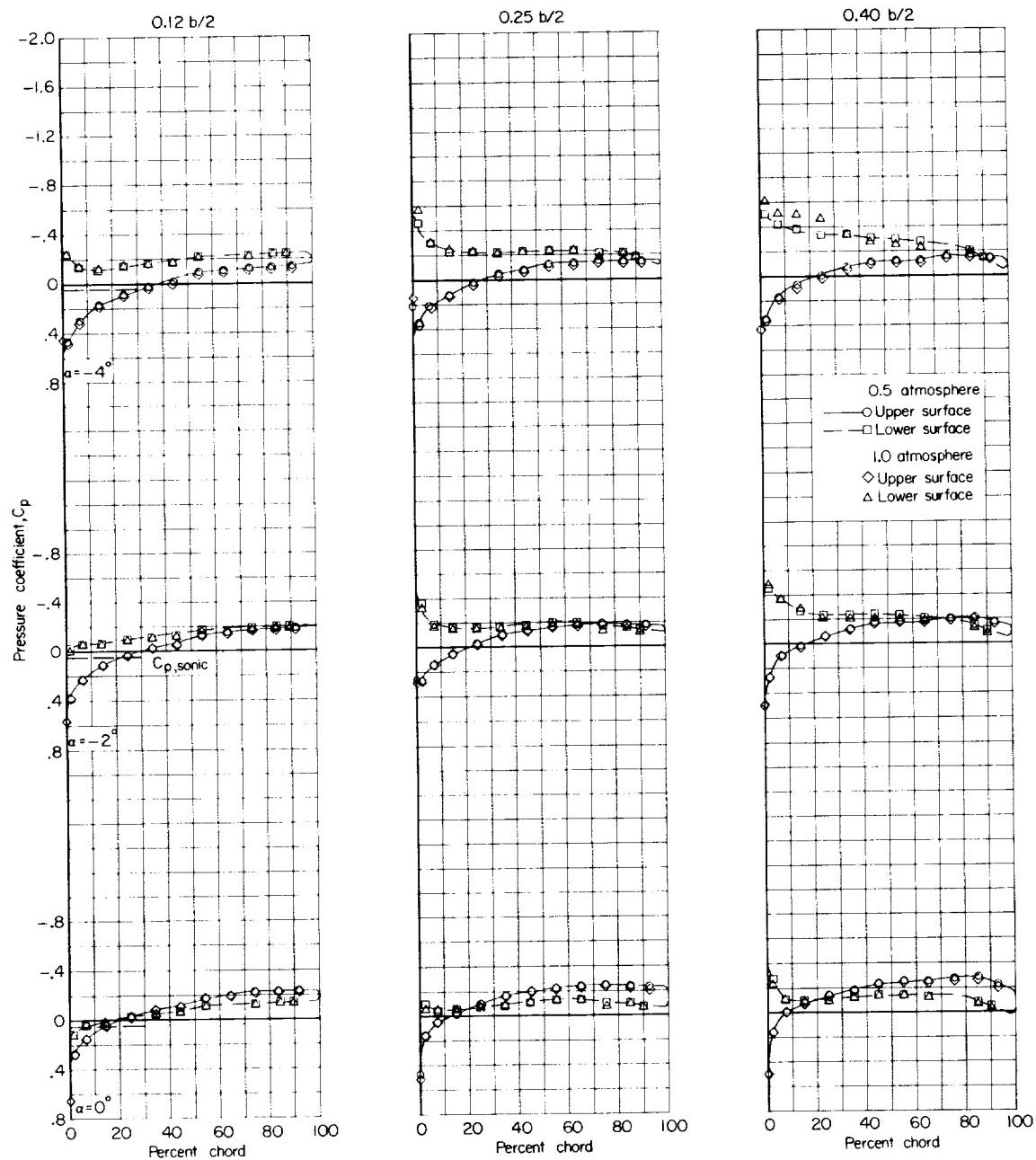
(h) $M = 0.980; \alpha = 2^\circ, 4^\circ, 8^\circ, \text{ and } 12^\circ$.

Figure 4.- Continued.



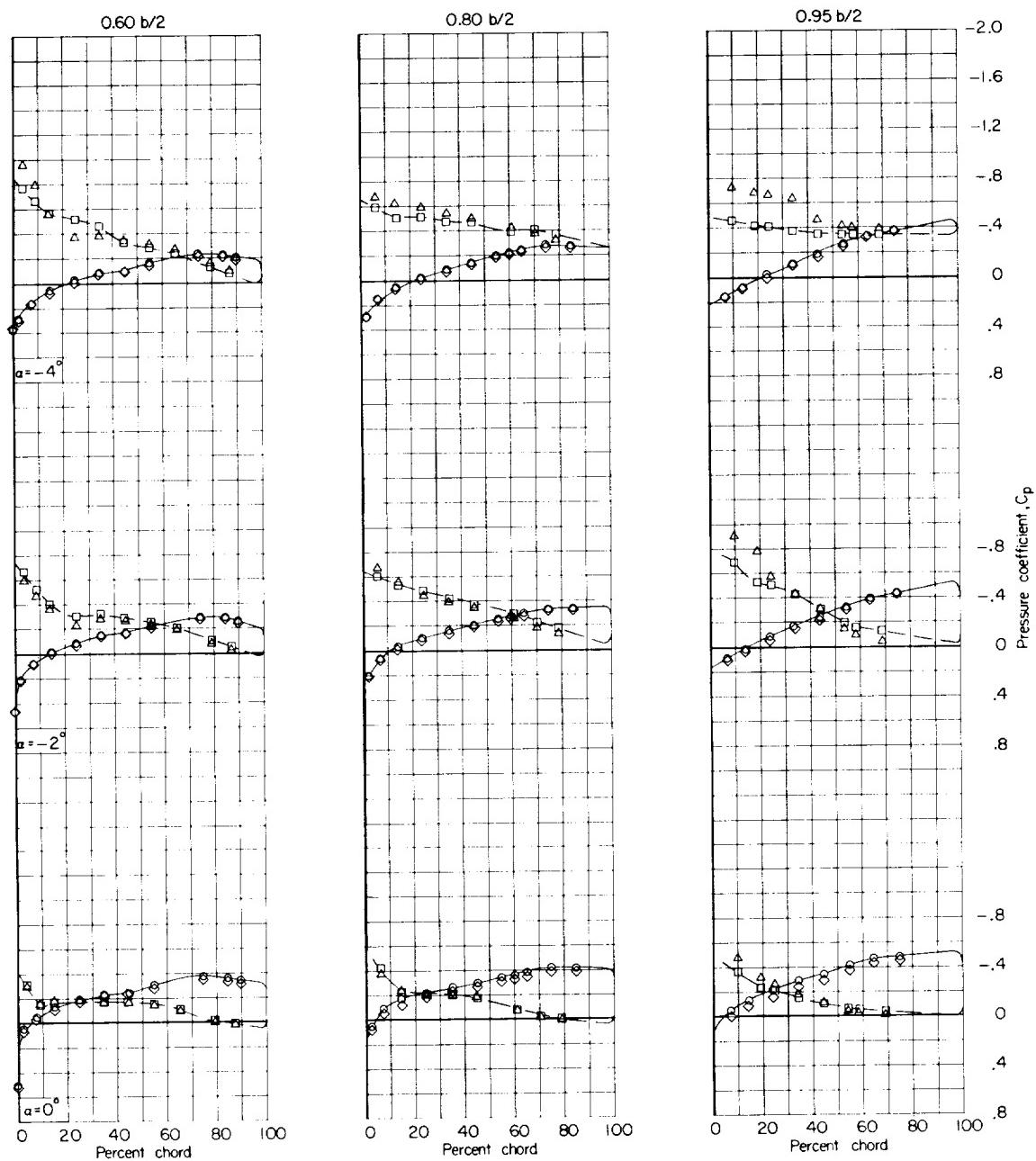
(h) Concluded.

Figure 4.- Continued.



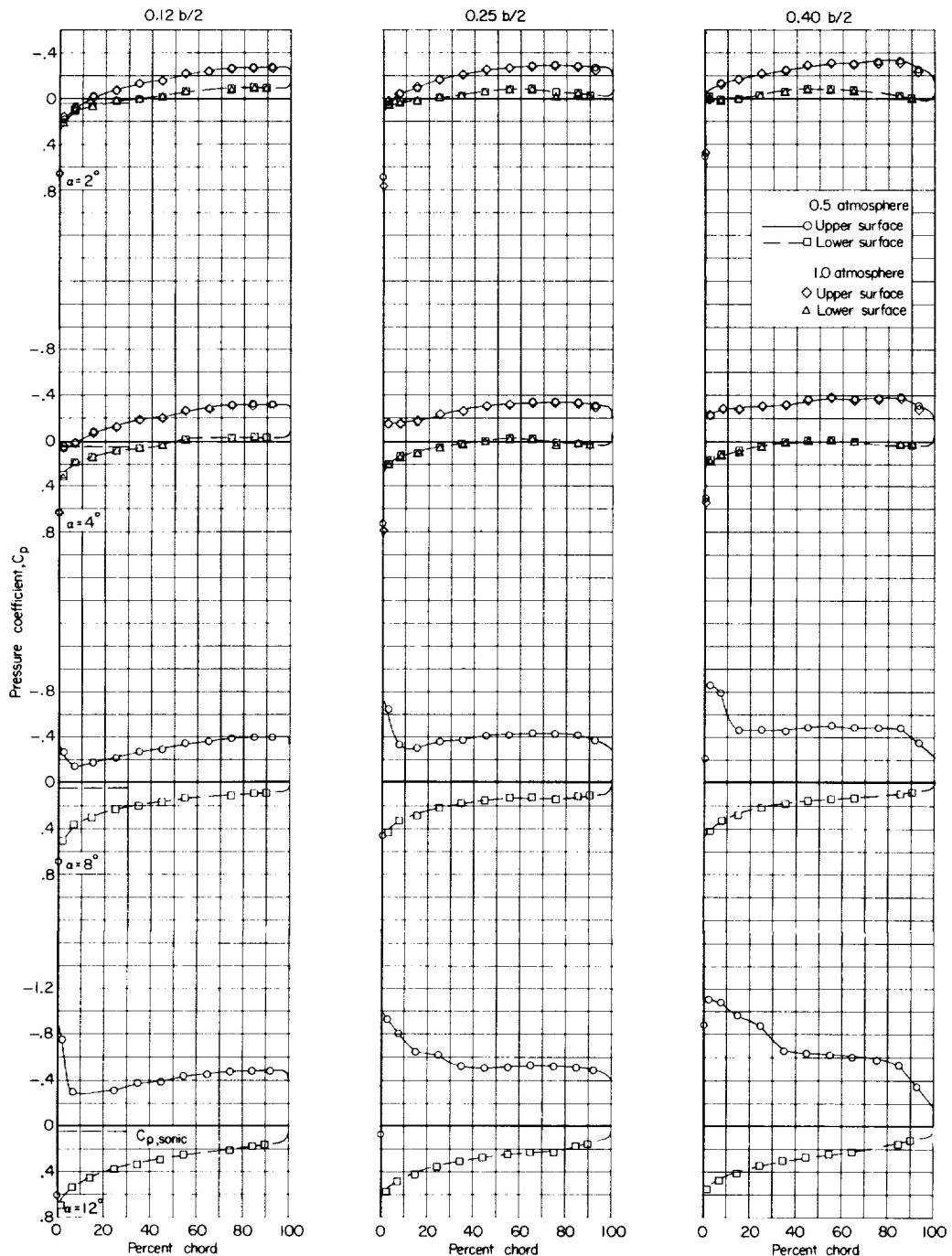
(i) $M = 1.030$; $\alpha = -4^\circ$, -2° , and 0° .

Figure 4.- Continued.



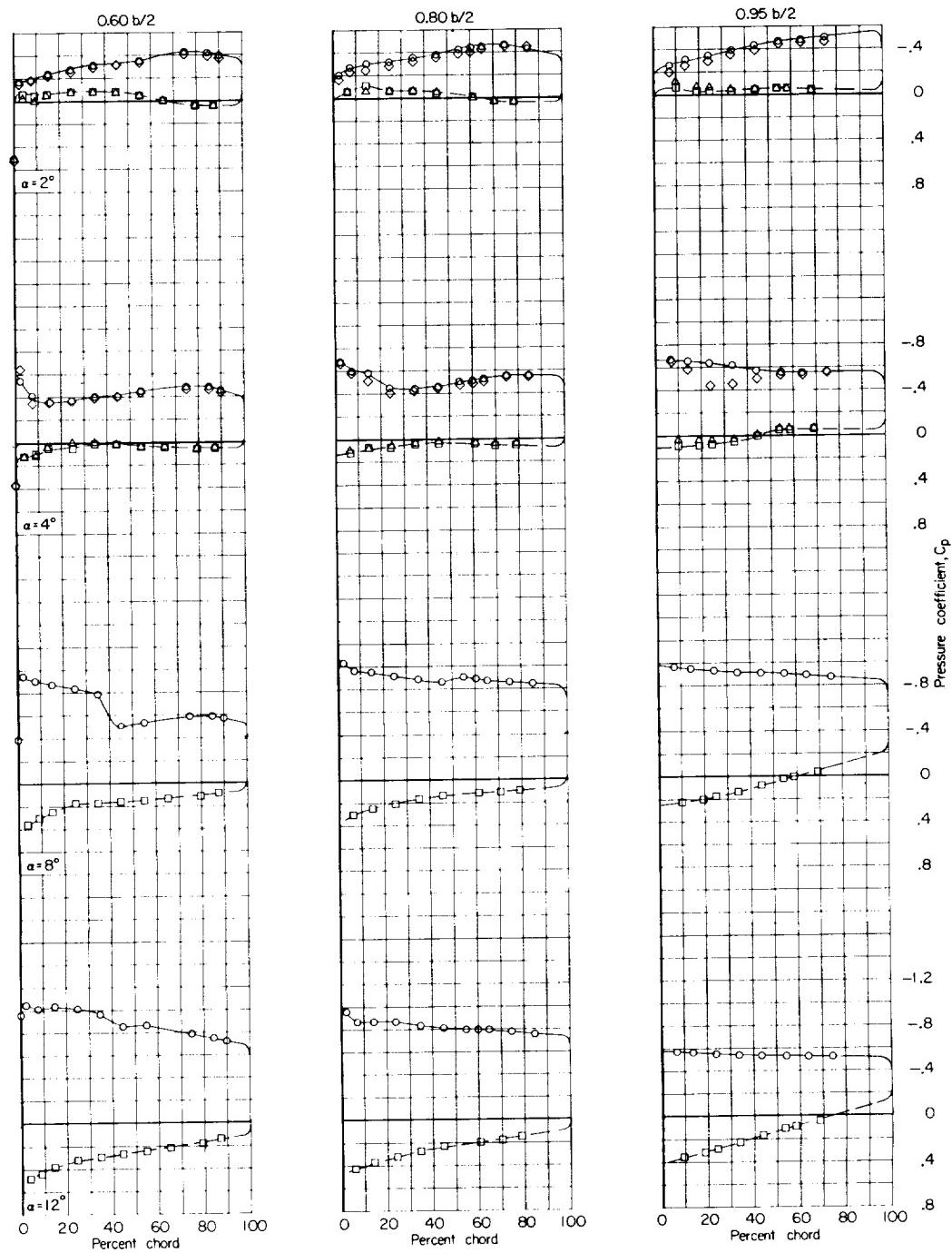
(i) Concluded.

Figure 4.- Continued.



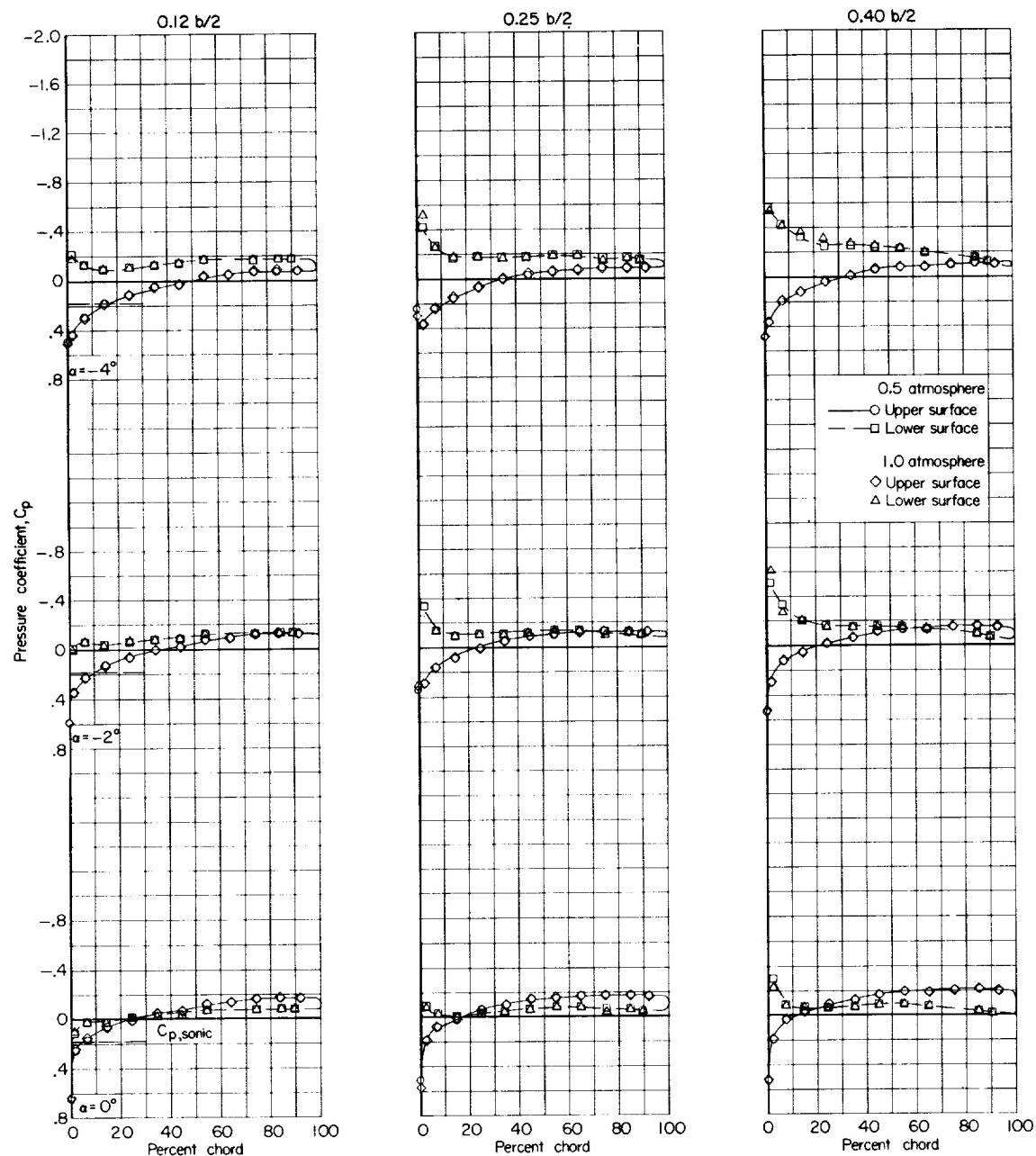
(j) $M = 1.030; \alpha = 2^\circ, 4^\circ, 8^\circ, \text{ and } 12^\circ$.

Figure 4.- Continued.



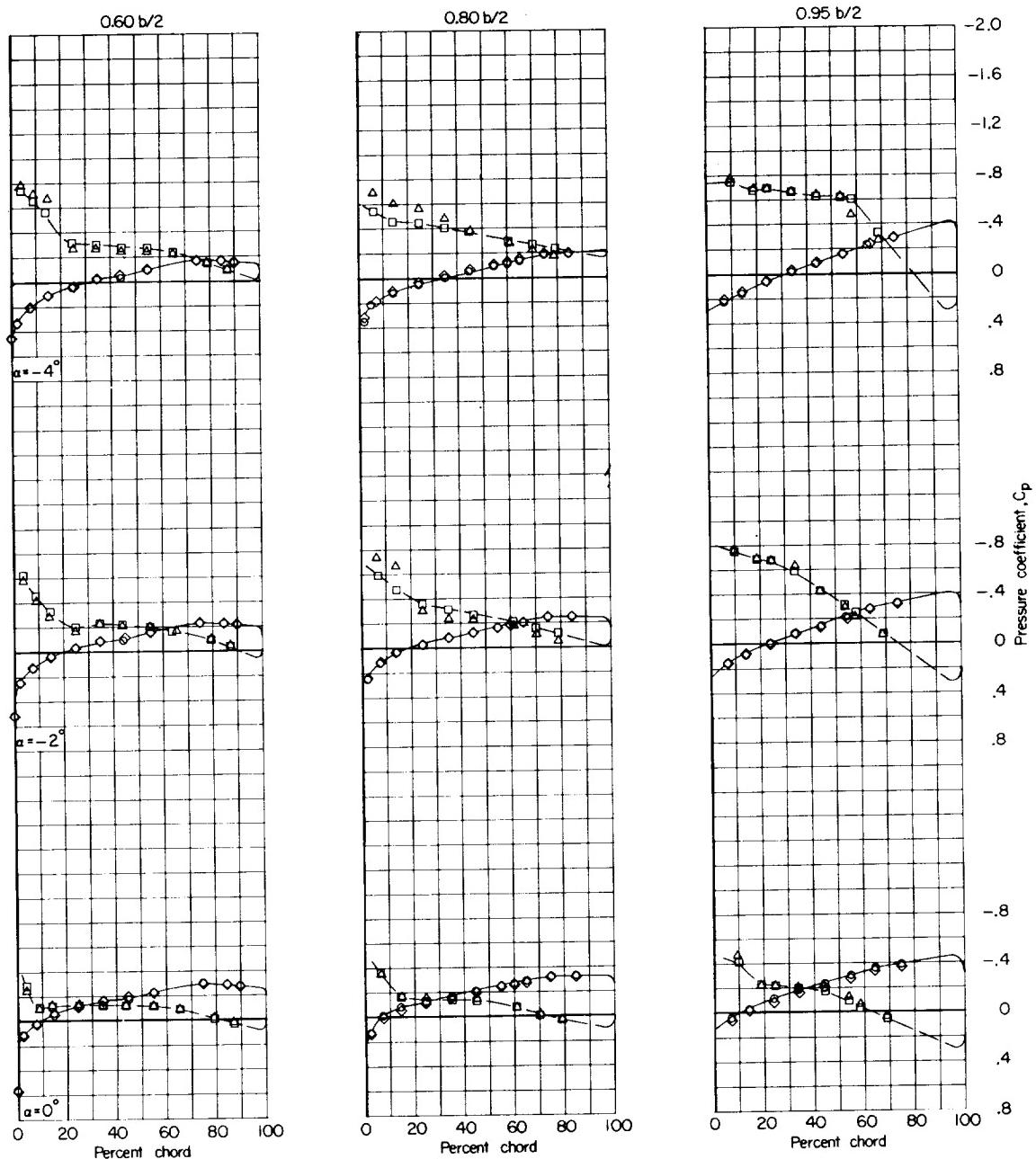
(j) Concluded.

Figure 4.- Continued.



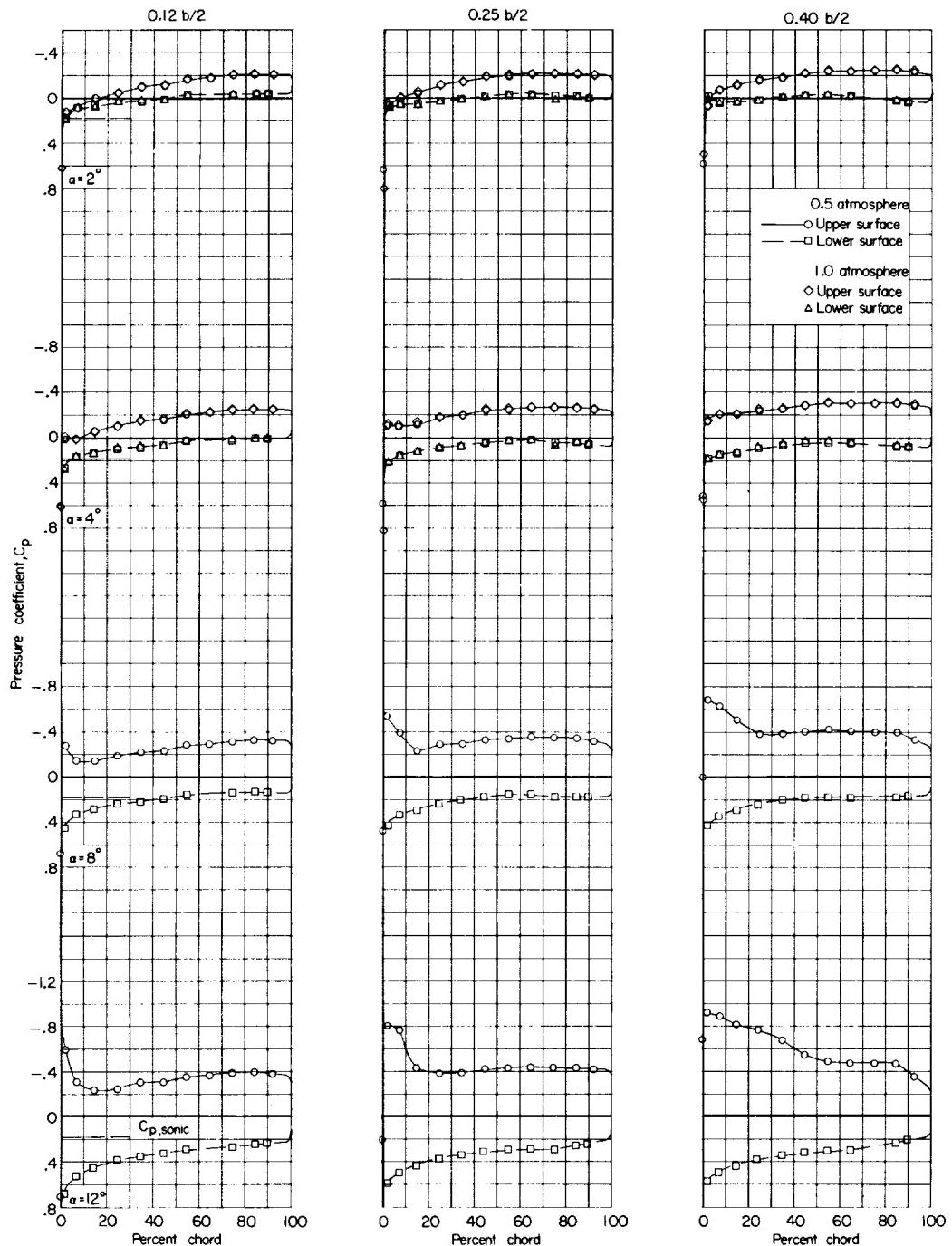
(k) $M = 1.125$; $\alpha = -4^\circ$, -2° , and 0° .

Figure 4.- Continued.



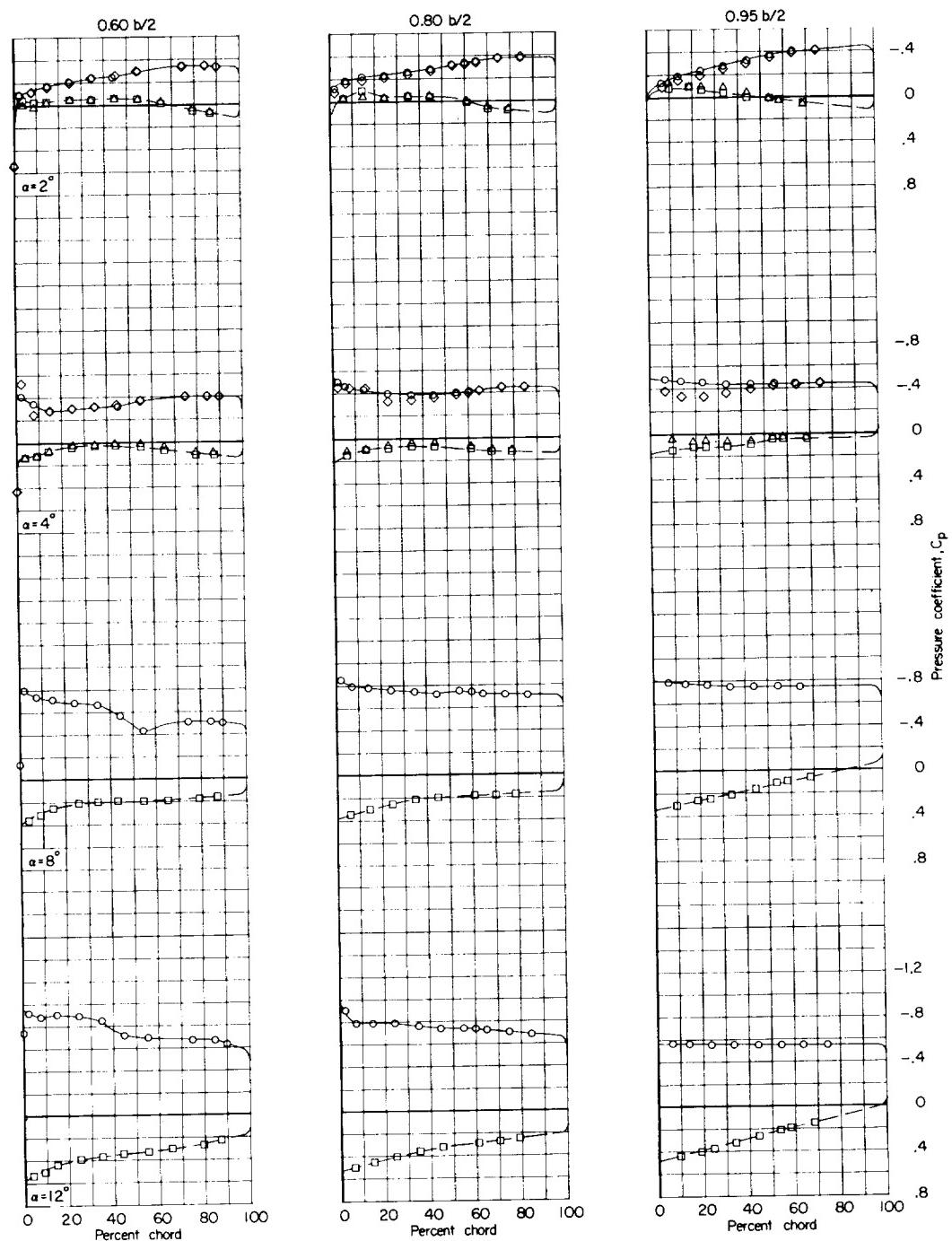
(k) Concluded.

Figure 4.- Continued.



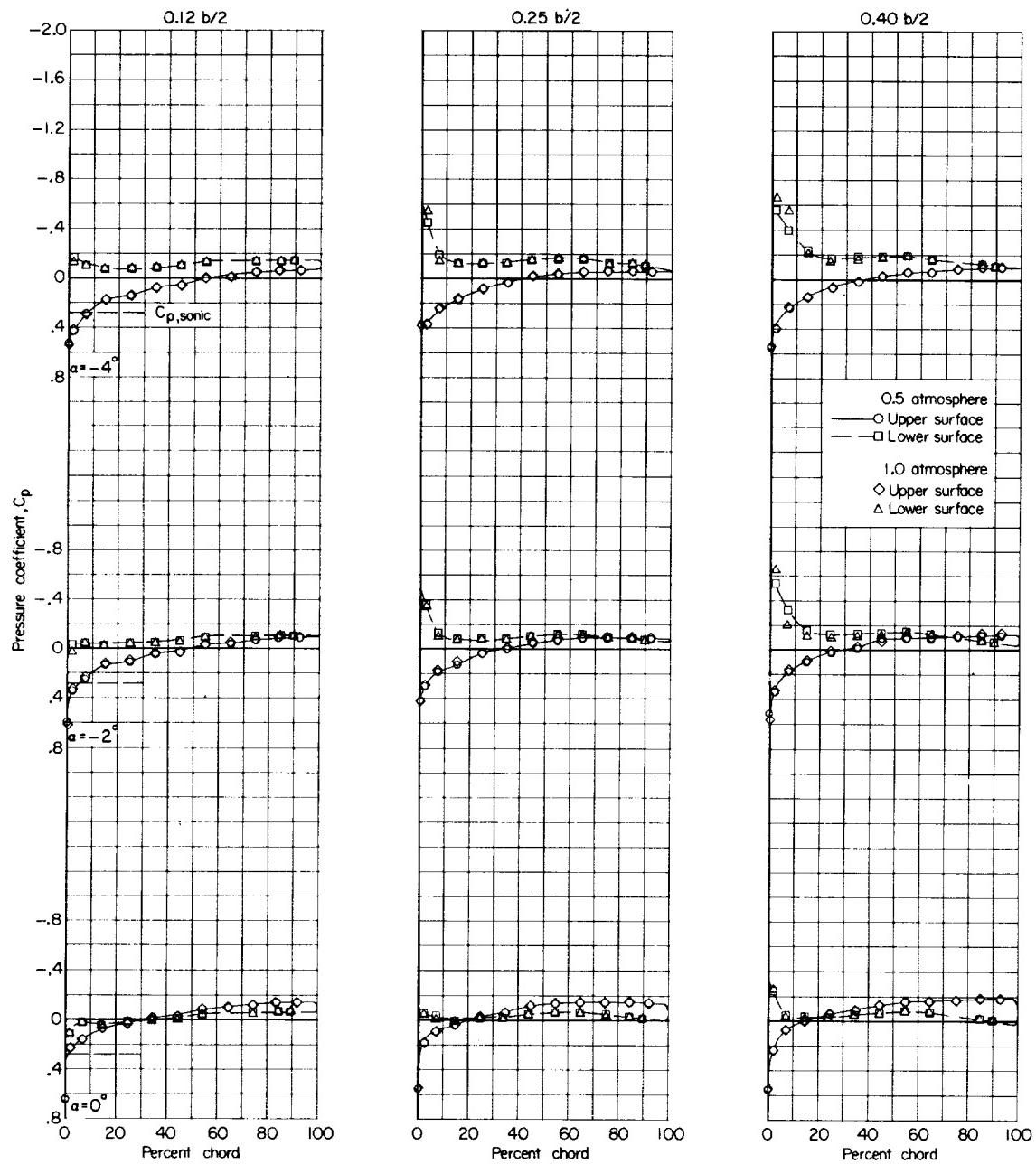
(l) $M = 1.125$; $\alpha = 2^\circ, 4^\circ, 8^\circ$, and 12° .

Figure 4.- Continued.



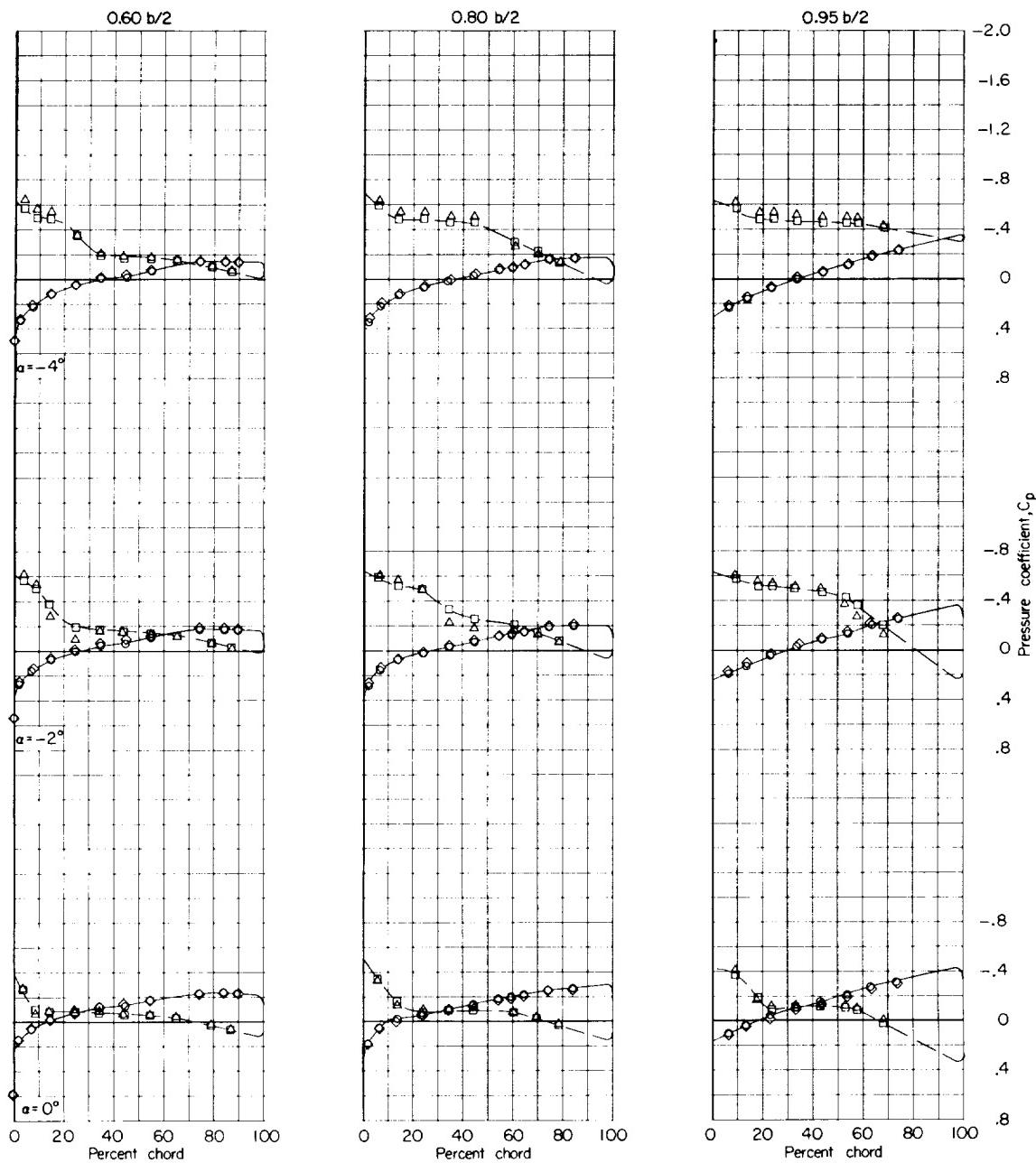
(1) Concluded.

Figure 4.- Continued.



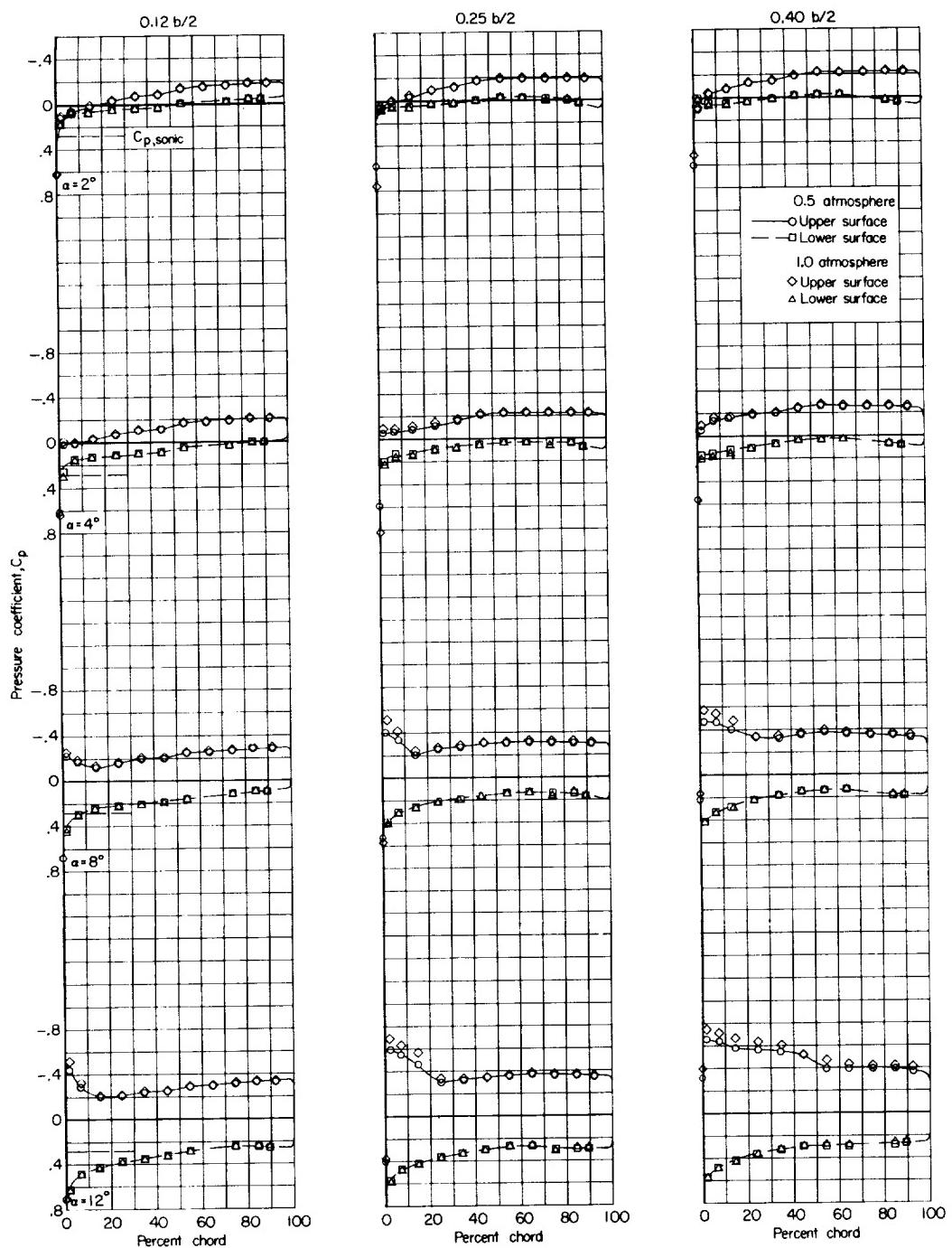
(m) $M = 1.200; \alpha = -4^\circ, -2^\circ$, and 0° .

Figure 4.- Continued.



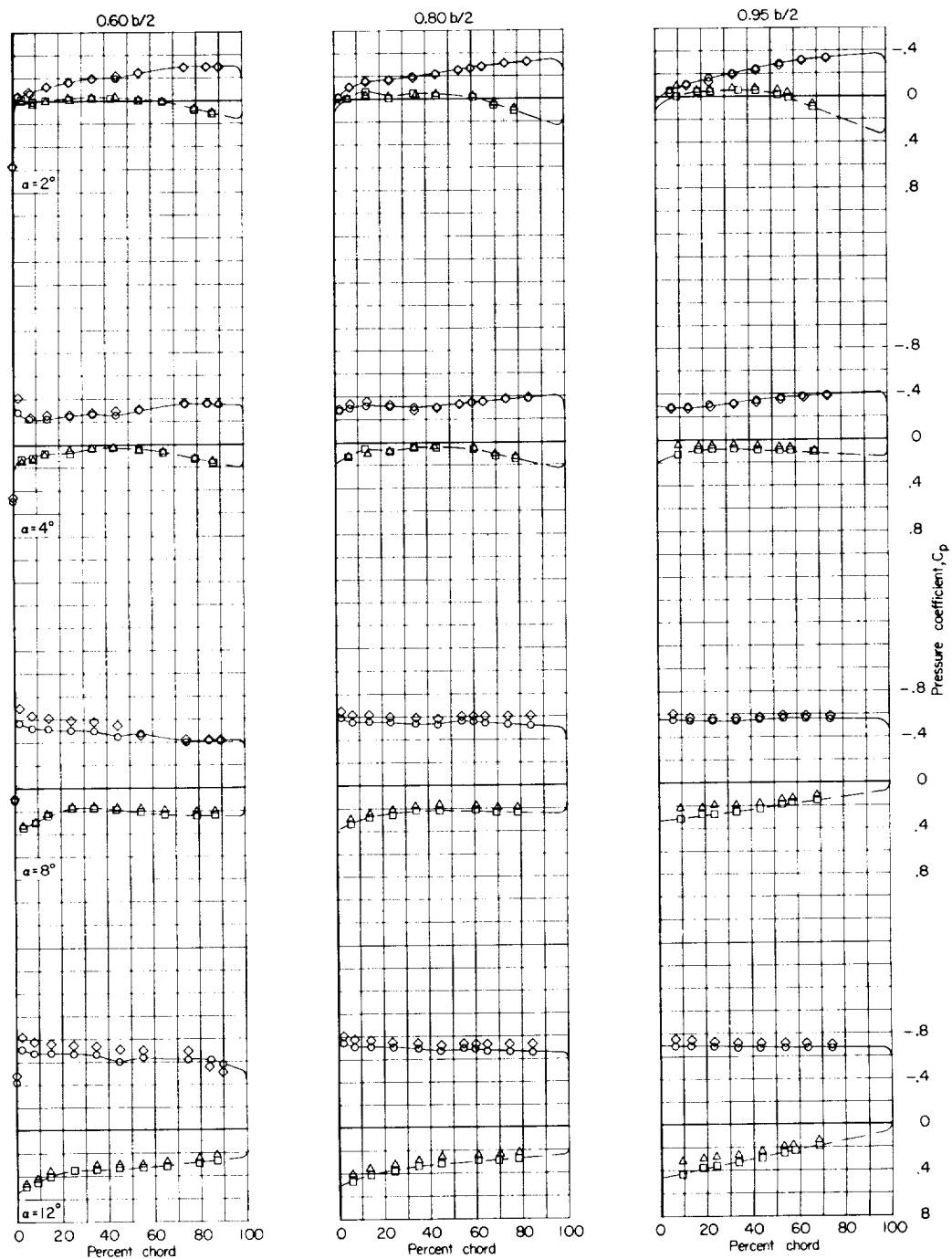
(m) Concluded.

Figure 4.- Continued.



(n) $M = 1.200; \alpha = 2^\circ, 4^\circ, 8^\circ$, and 12° .

Figure 4.- Continued.



(n) Concluded.

Figure 4.- Concluded.

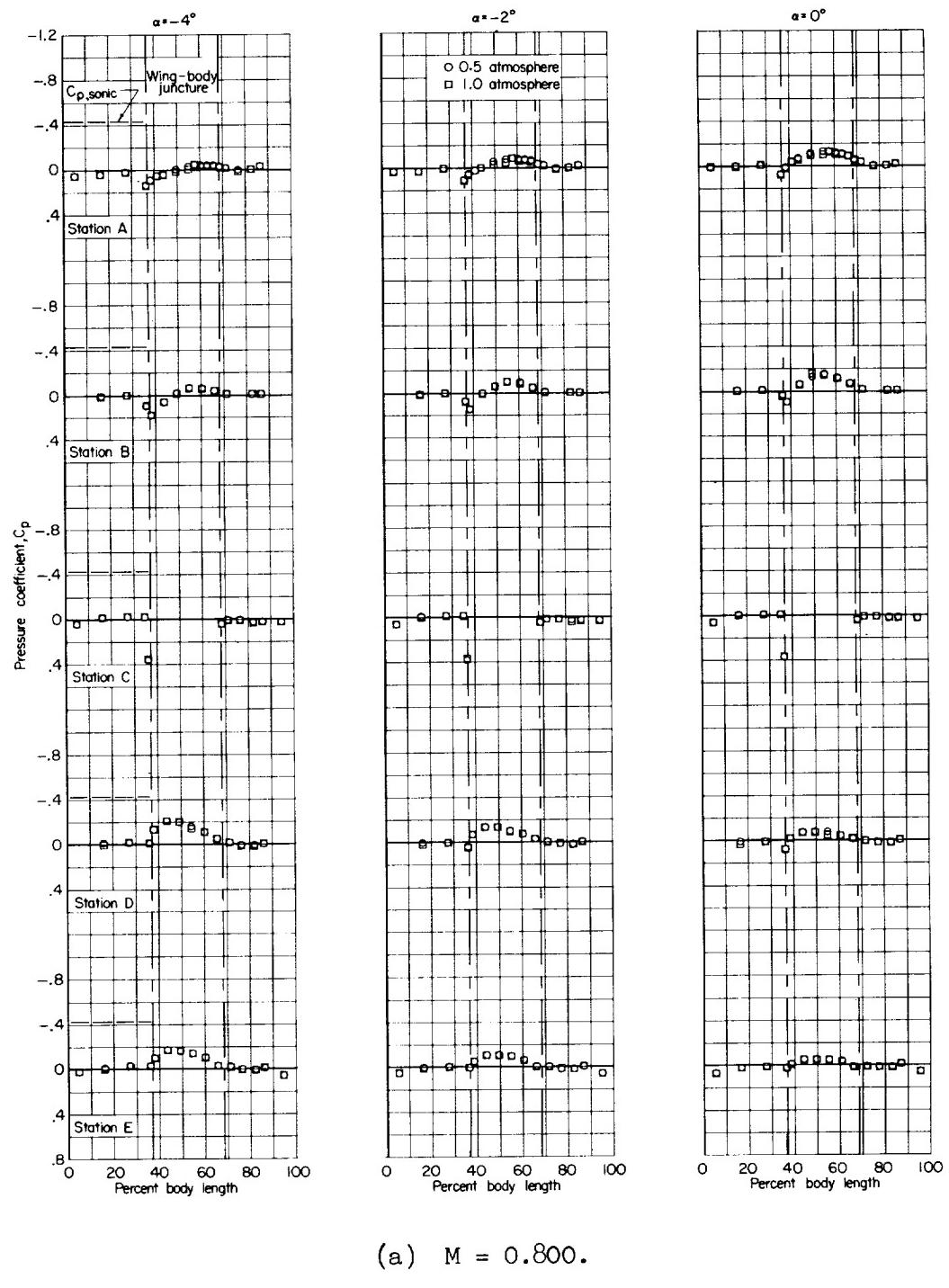
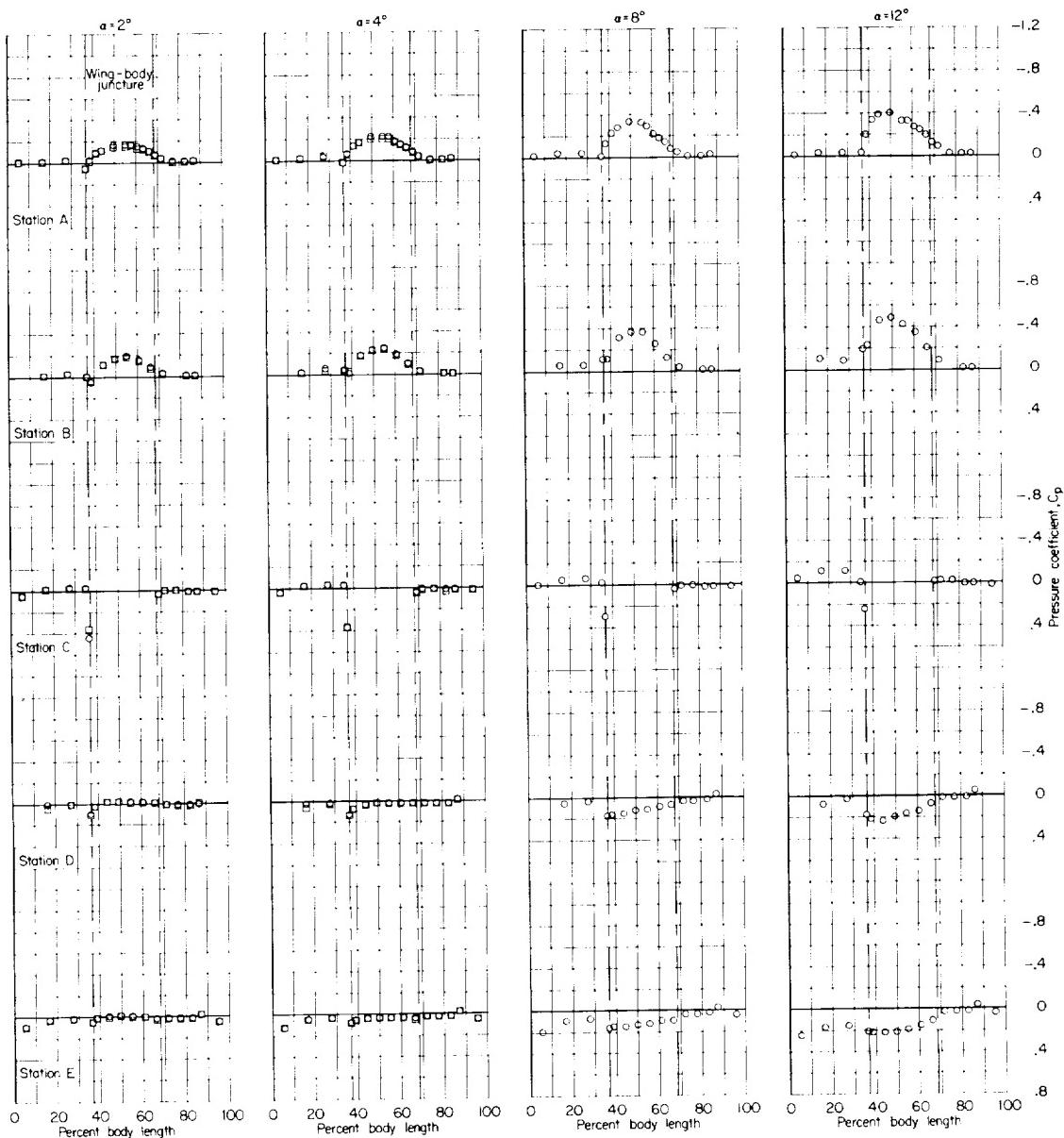


Figure 5.- Pressure measurements on body in presence of wing.



(a) Concluded.

Figure 5.- Continued.

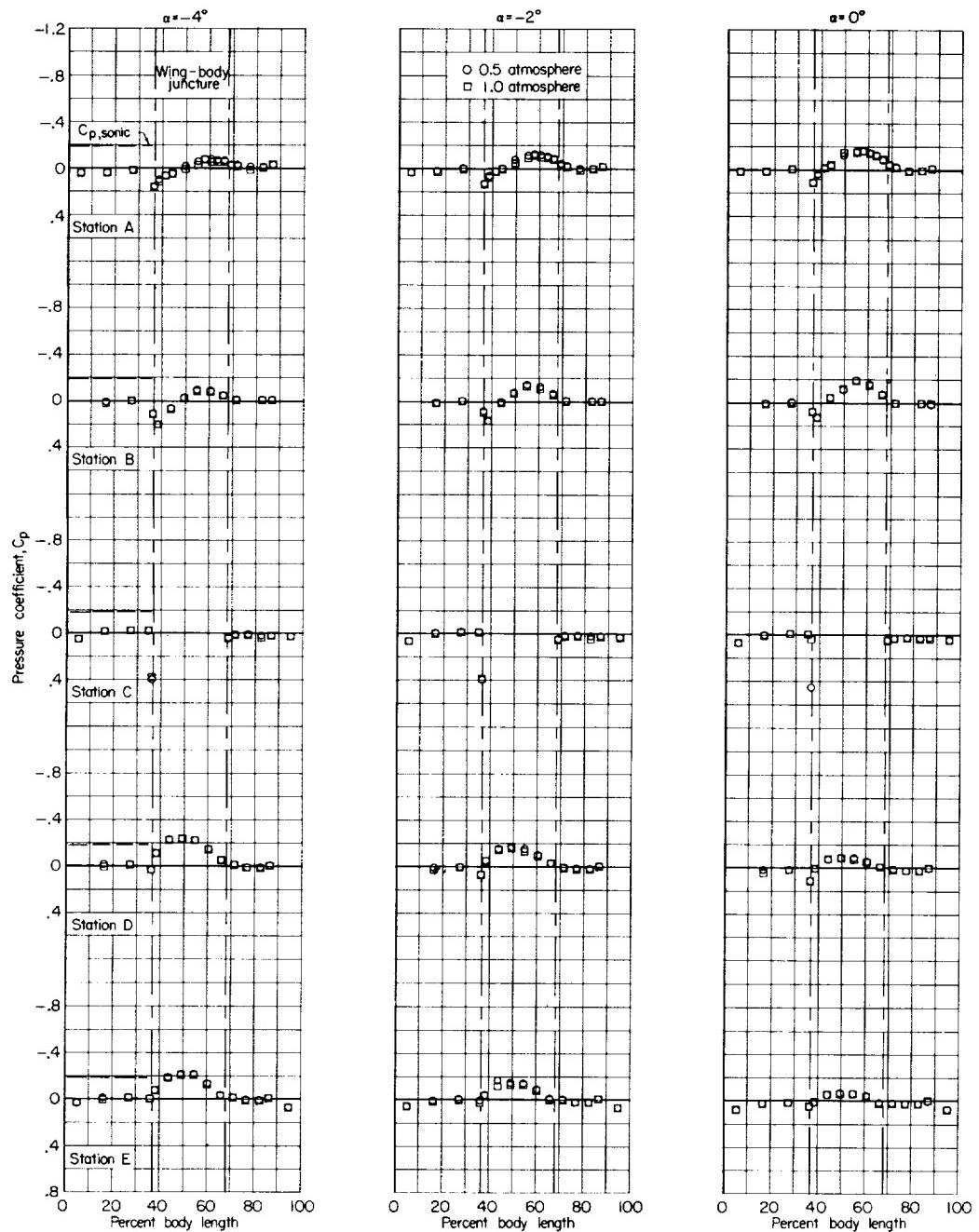
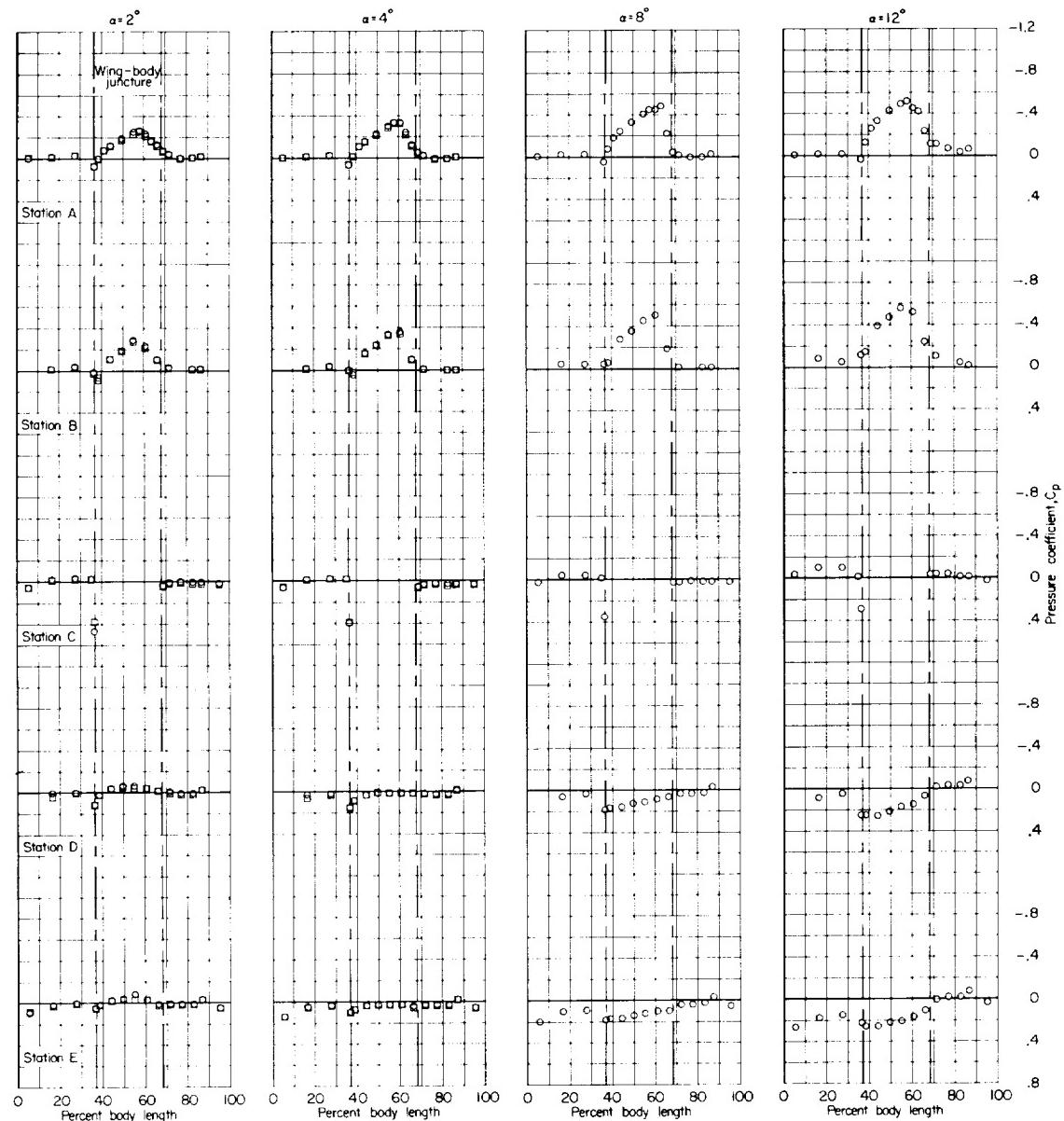
(b) $M = 0.900$.

Figure 5.- Continued.



(b) Concluded.

Figure 5.- Continued.

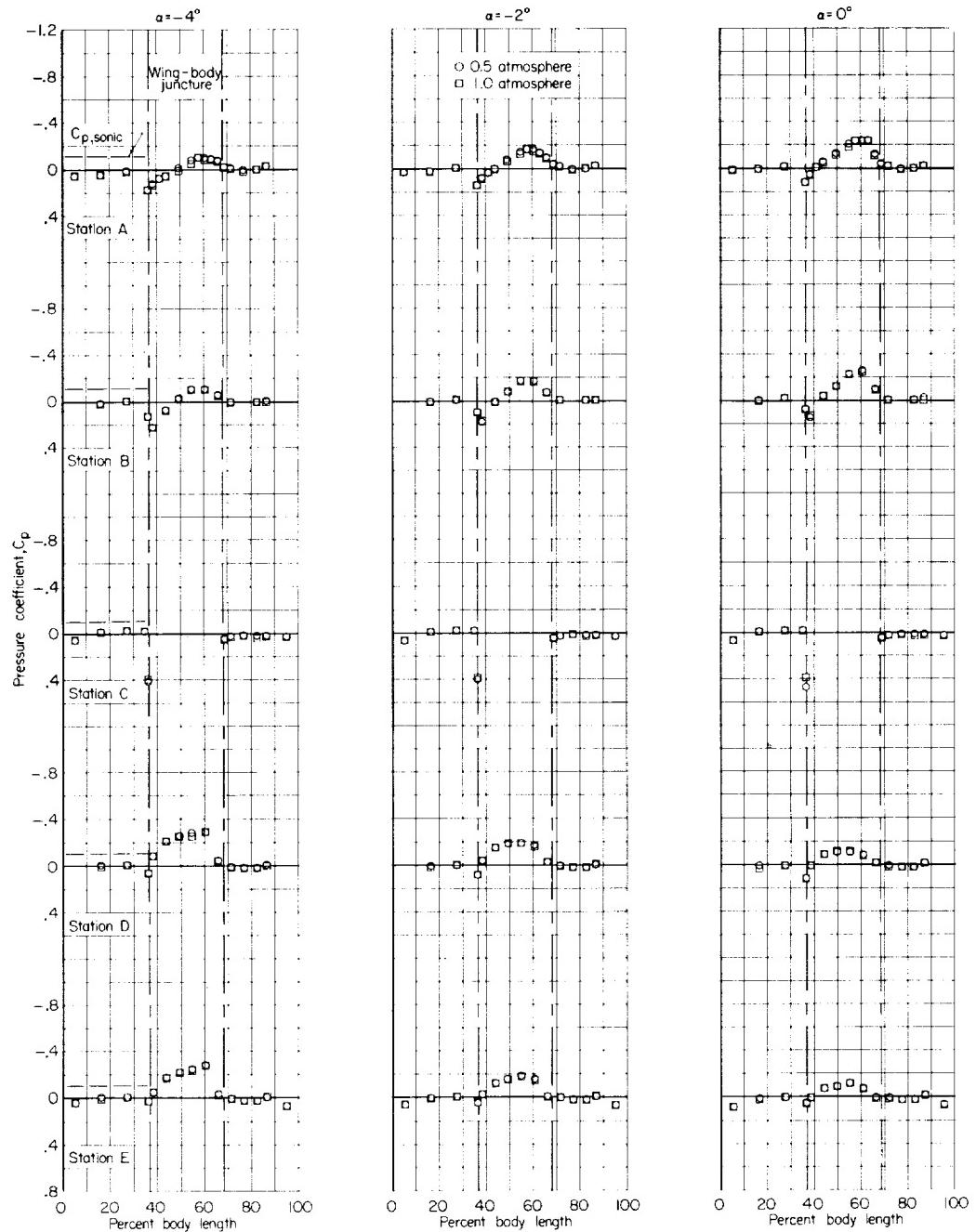
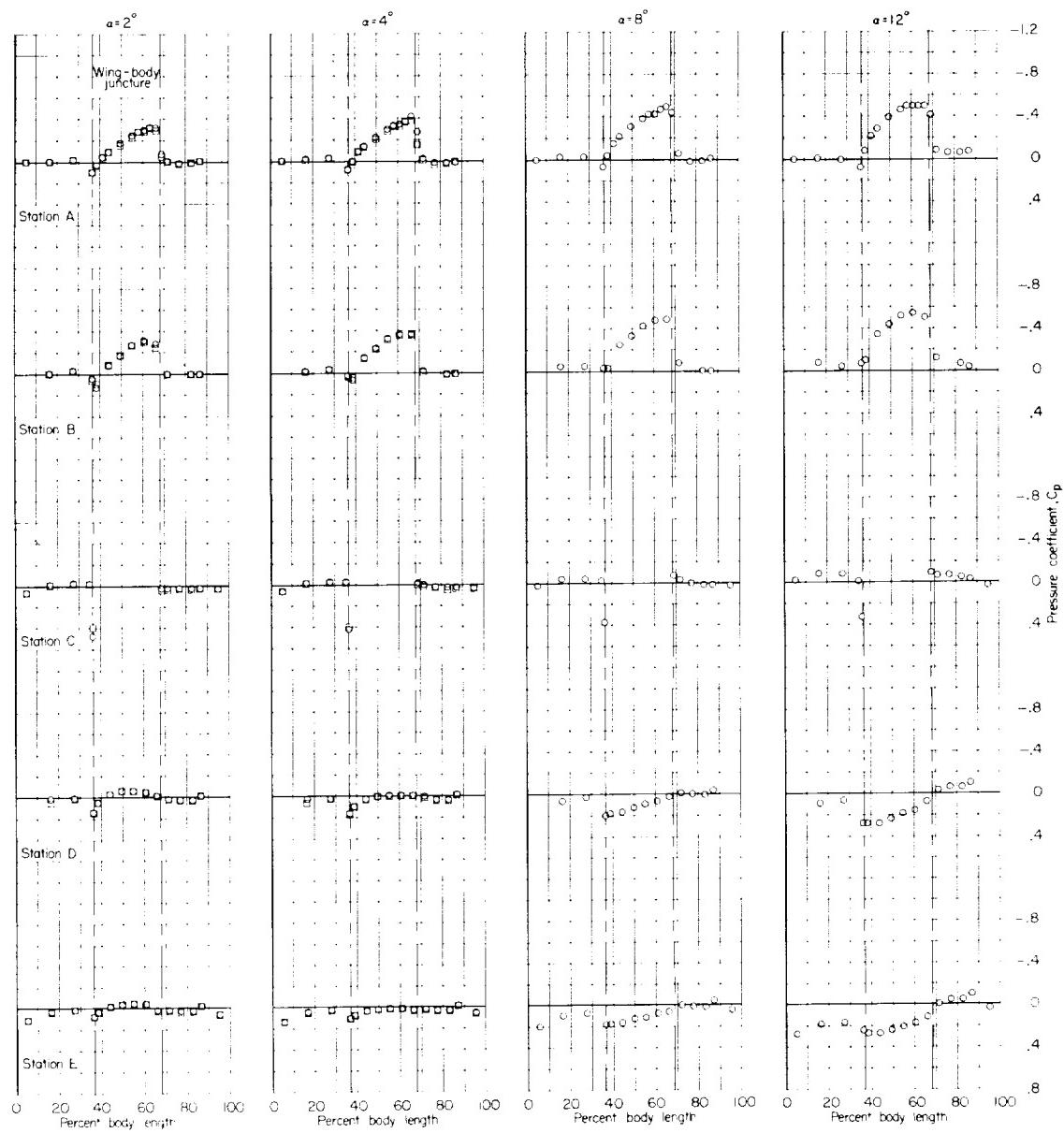
(c) $M = 0.940$.

Figure 5.- Continued.



(c) Concluded.

Figure 5.- Continued.

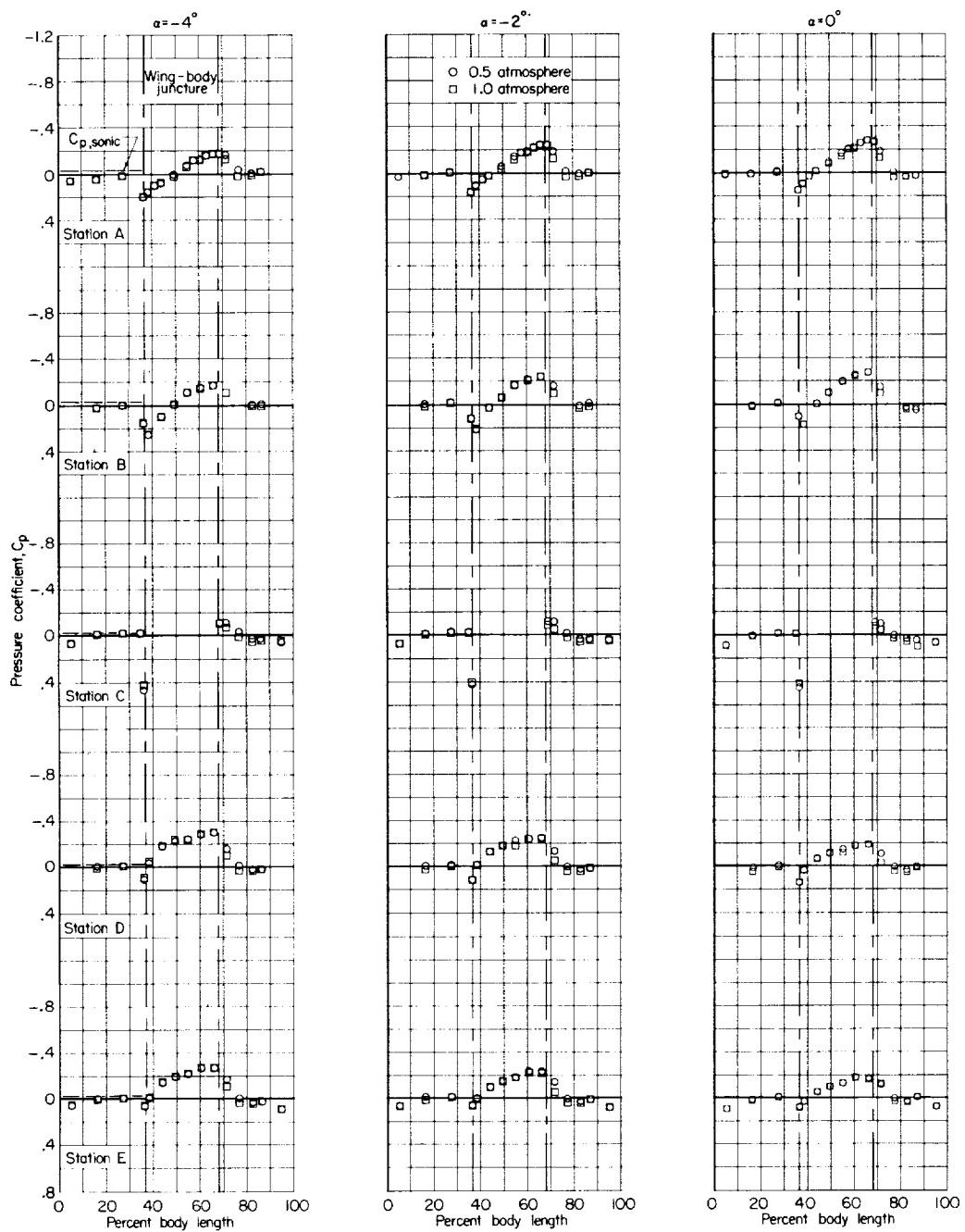
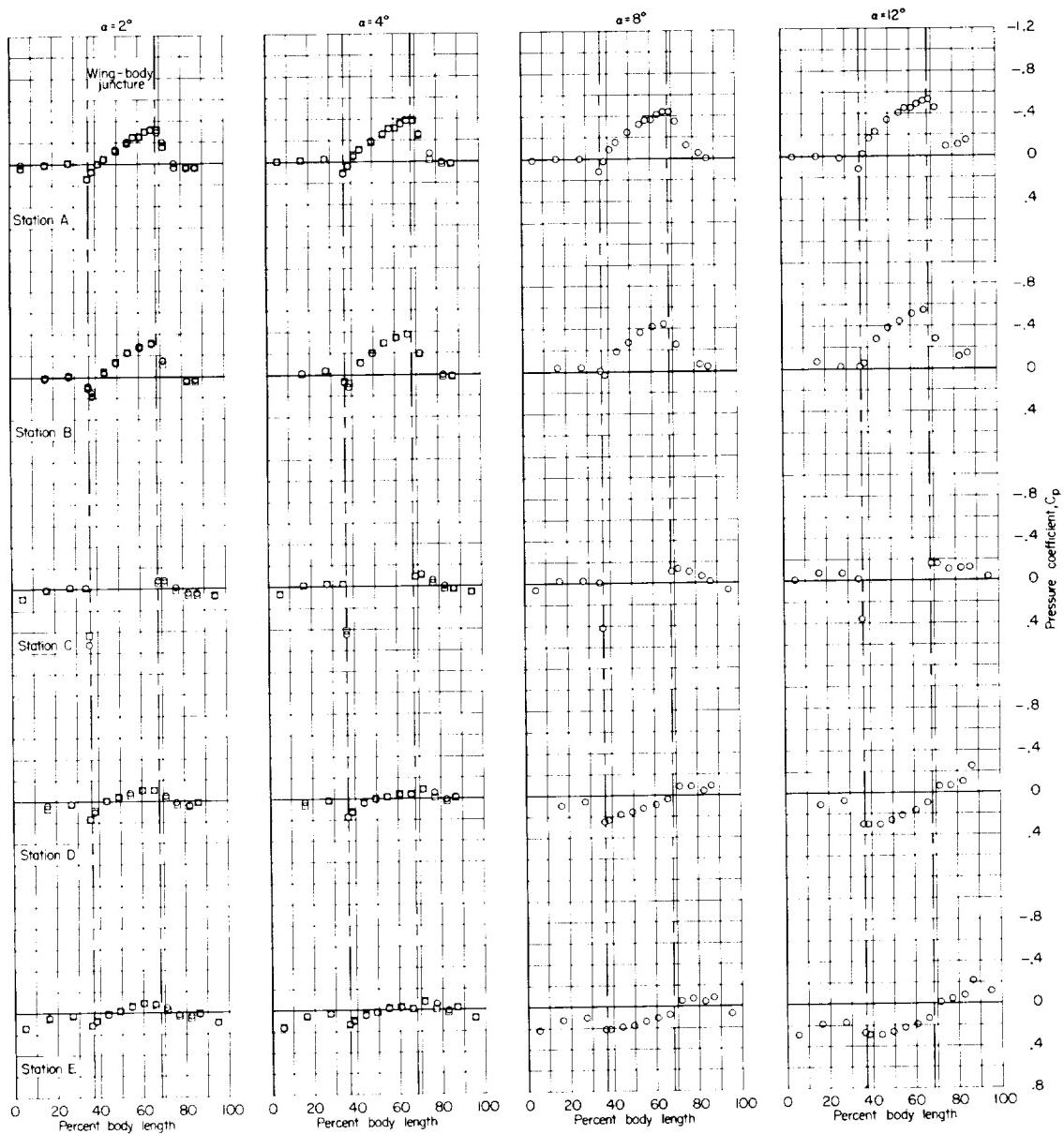
(d) $M = 0.980$.

Figure 5.- Continued.



(d) Concluded.

Figure 5.- Continued.

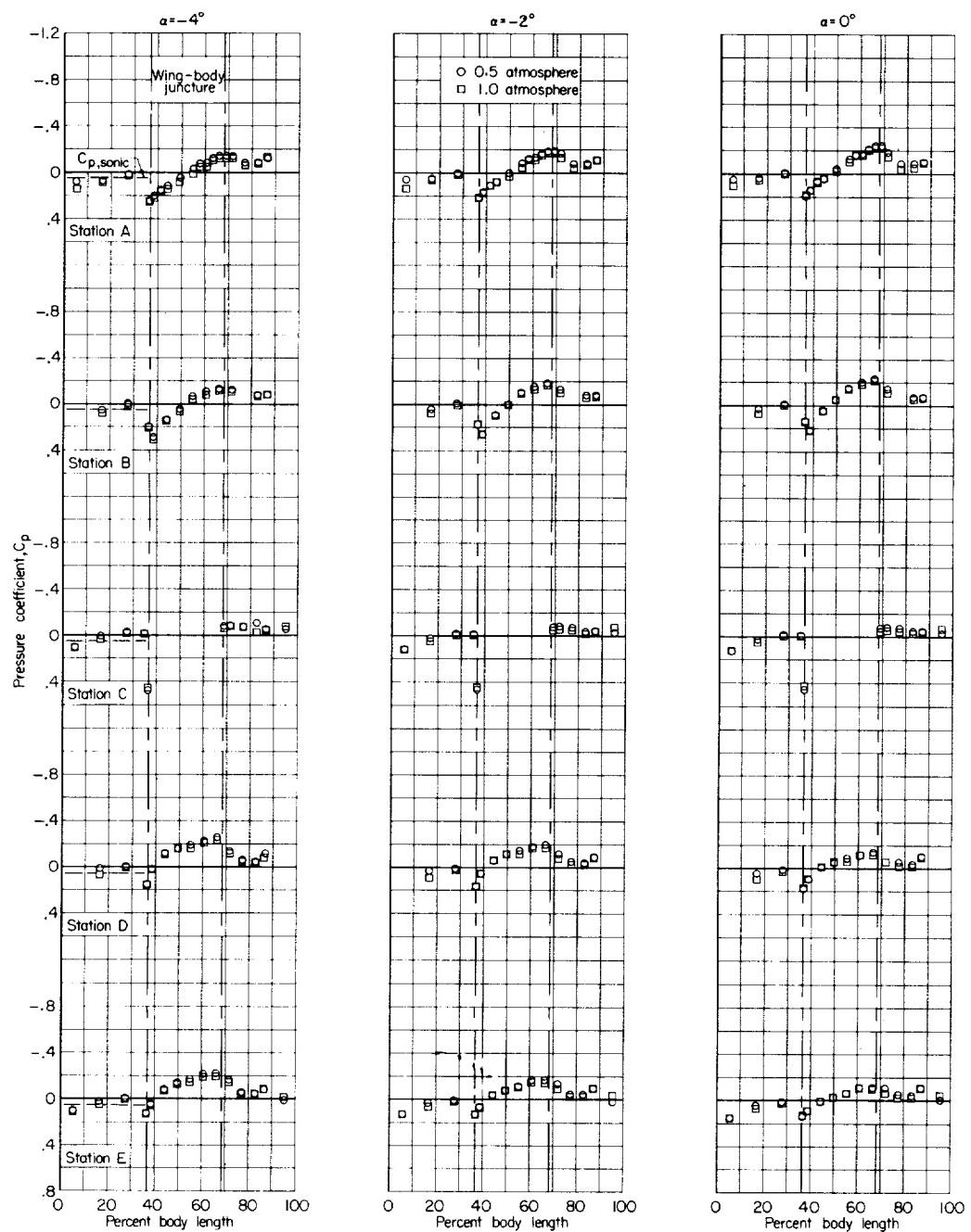
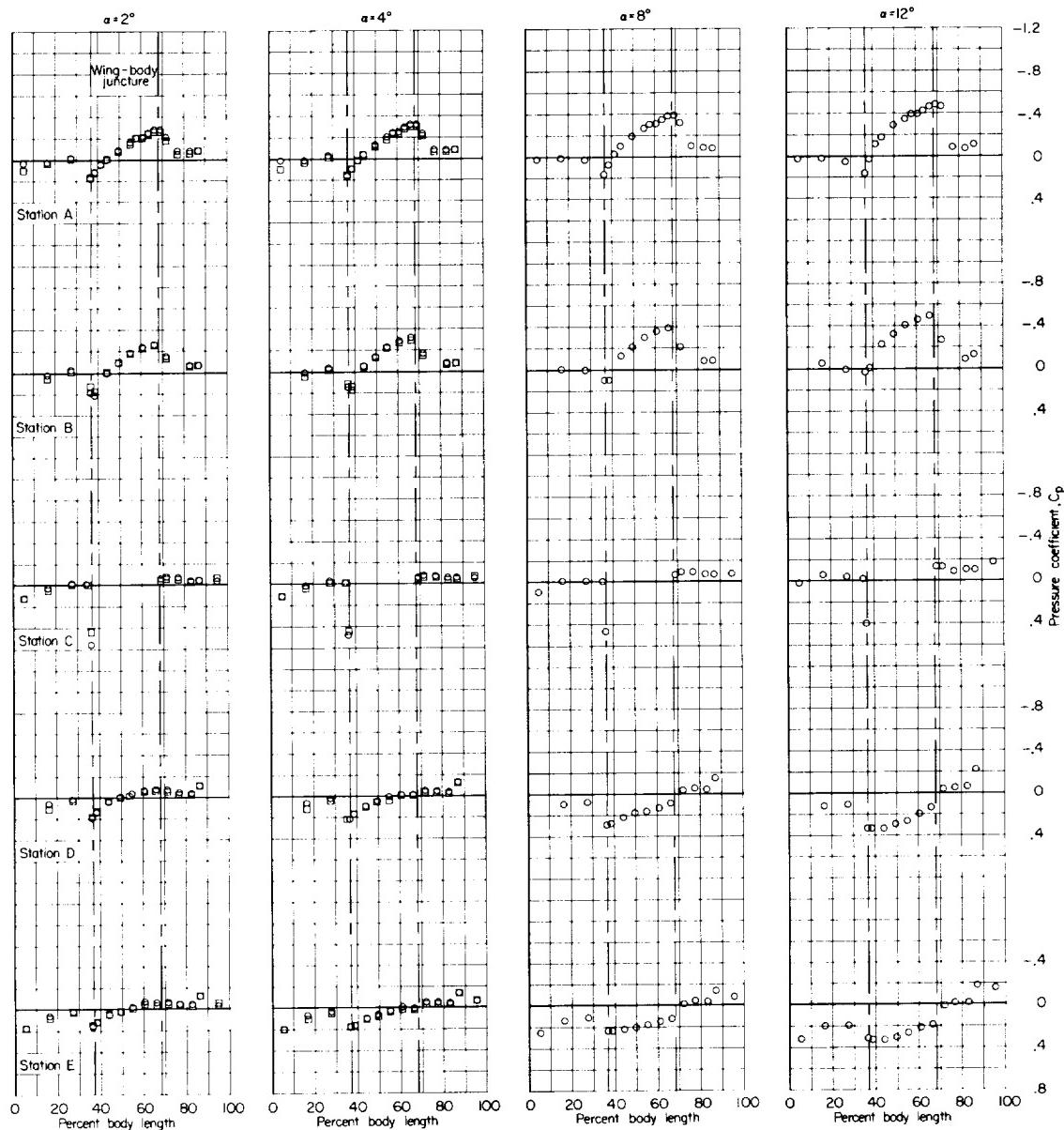
(e) $M = 1.030.$

Figure 5.- Continued.



(e) Concluded.

Figure 5.- Continued.

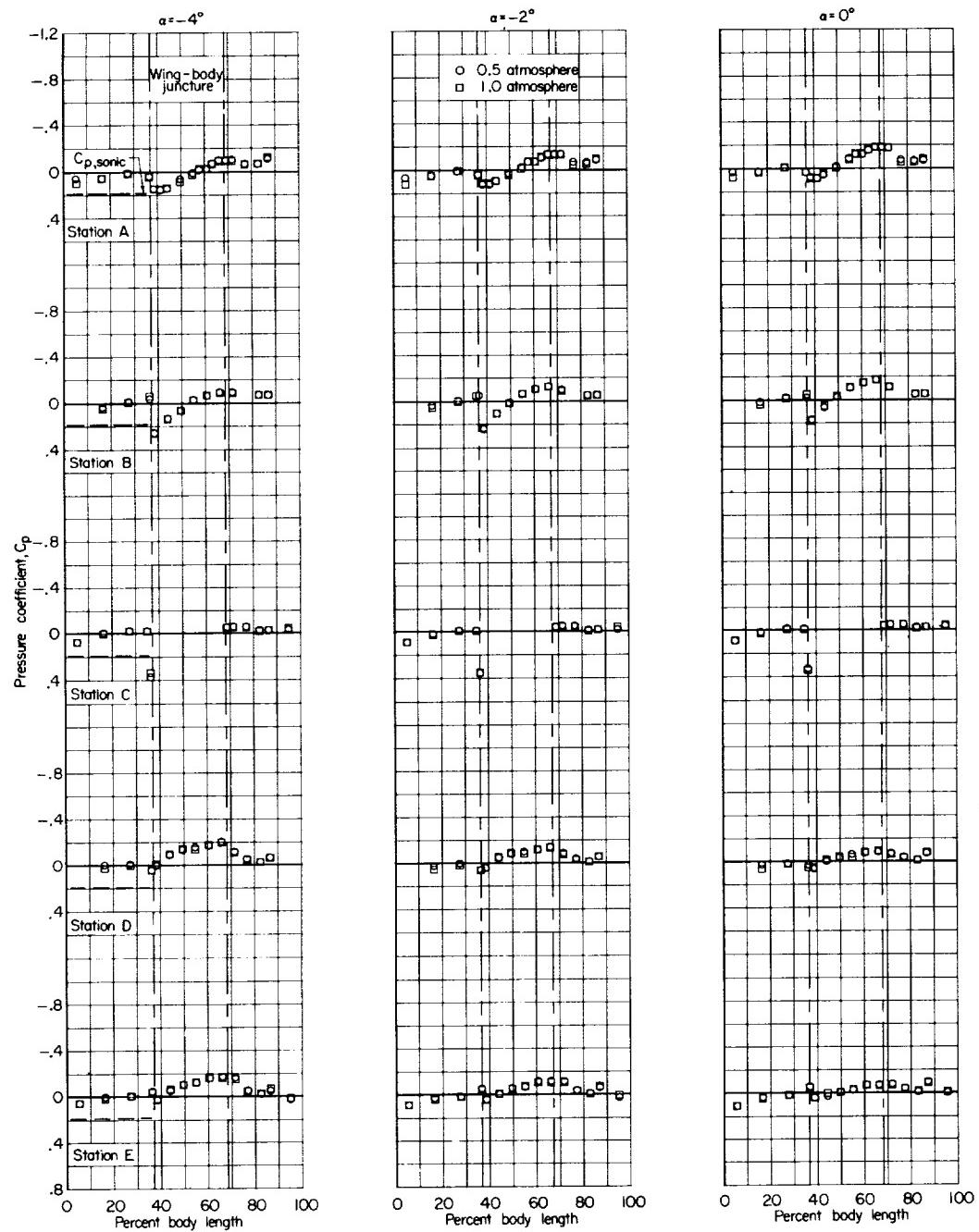
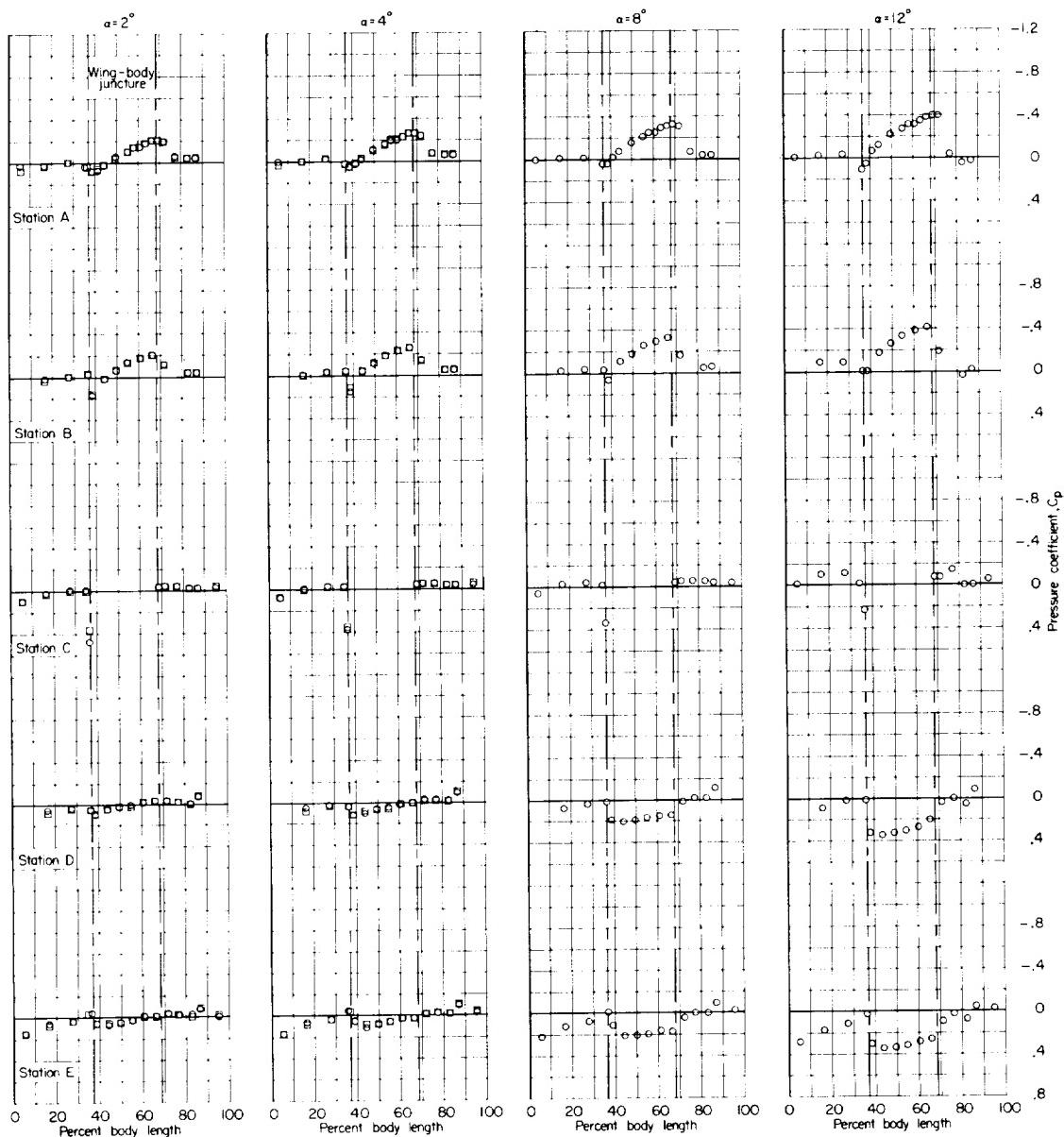
(f) $M = 1.125$.

Figure 5.- Continued.



(f) Concluded.

Figure 5.- Continued.

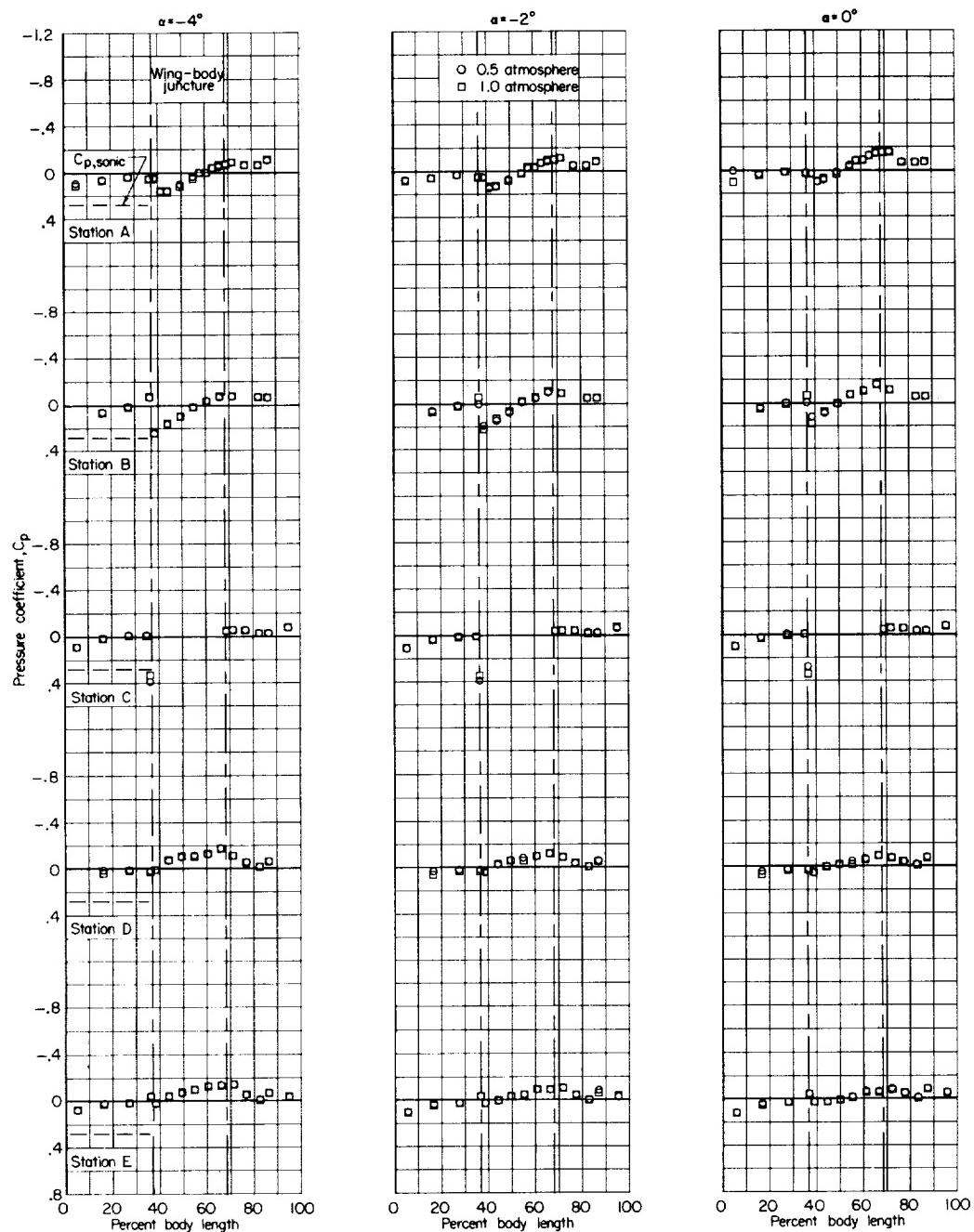
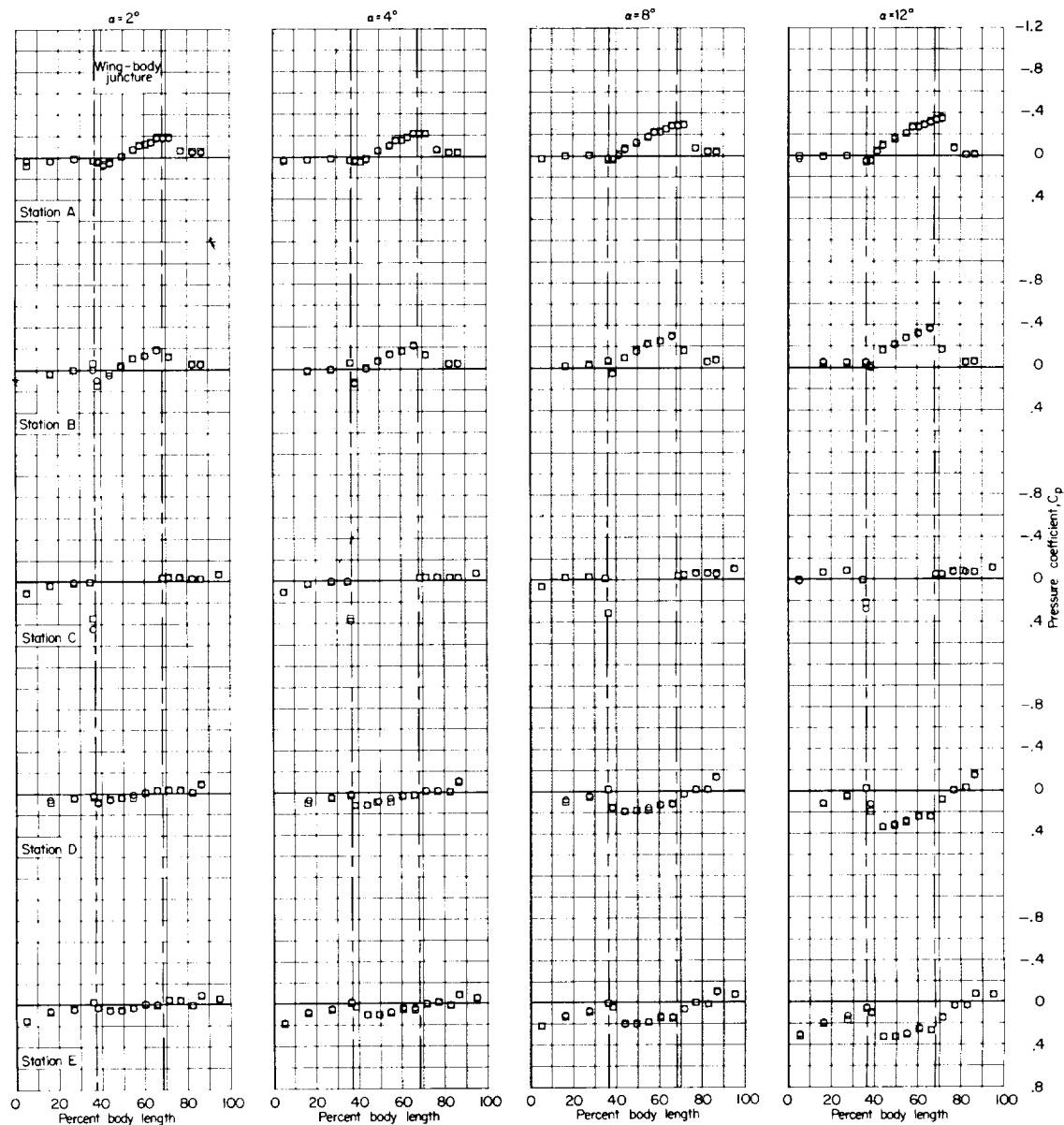
(g) $M = 1.200$.

Figure 5.- Continued.



(g) Concluded.

Figure 5.- Concluded.



<p>NASA MEMO 10-20-58L National Aeronautics and Space Administration. BASIC PRESSURE MEASUREMENTS AT TRANSONIC SPEEDS ON A THIN 45° SWEPTBACK HIGHLY TAPERED WING WITH SYSTEMATIC SPANWISE TWIST VARIATIONS. UNTWISTED WING. John P. Mugler, Jr. December 1958. 93p. diagrs., tabs. (NASA MEMORANDUM 10-20-58L)</p> <p>Data are presented which were obtained in the Langley 8-foot transonic pressure tunnel at Mach numbers from 0.800 to 1.200 through an angle-of-attack range from -4° to 12°. The wing has a taper ratio of 0.15 and an aspect ratio of 4.0. The wing is cambered and has a thickened root section. Data were taken at stagnation pressures of both 1.0 and 0.5 atmosphere.</p>	<p>1. Mach Number Effects - Complete Wings (1.2.2.6) 2. Wing-Fuselage Combinations - Airplanes (1.7.1.1.1) 3. Loads, Steady - Wings (4.1.1.1) 4. Loads - Aeroelasticity (4.1.1.5)</p> <p>I. Mugler, John P., Jr. NASA MEMO 10-20-58L II. NASA MEMO 10-20-58L</p>	<p>NASA MEMO 10-20-58L National Aeronautics and Space Administration. BASIC PRESSURE MEASUREMENTS AT TRANSONIC SPEEDS ON A THIN 45° SWEPTBACK HIGHLY TAPERED WING WITH SYSTEMATIC SPANWISE TWIST VARIATIONS. UNTWISTED WING. John P. Mugler, Jr. December 1958. 93p. diagrs., tabs. (NASA MEMORANDUM 10-20-58L)</p> <p>Data are presented which were obtained in the Langley 8-foot transonic pressure tunnel at Mach numbers from 0.800 to 1.200 through an angle-of-attack range from -4° to 12°. The wing has a taper ratio of 0.15 and an aspect ratio of 4.0. The wing is cambered and has a thickened root section. Data were taken at stagnation pressures of both 1.0 and 0.5 atmosphere.</p>
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<p>Copies obtainable from NASA, Washington</p>	<p>NASA</p>	<p>Copies obtainable from NASA, Washington</p>

